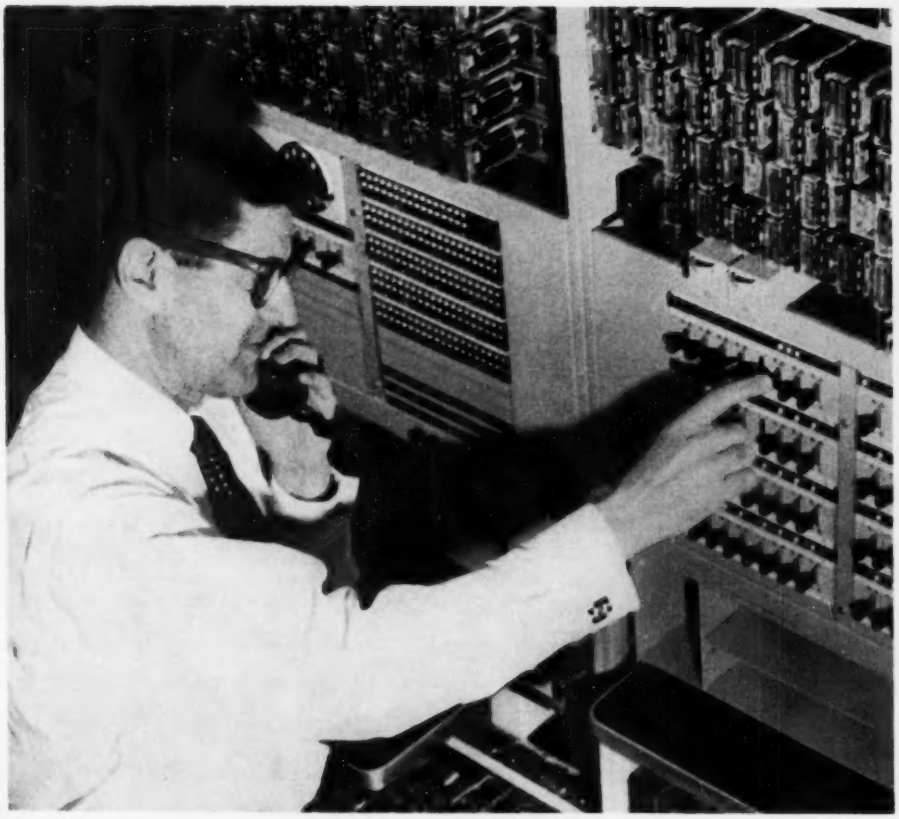
APRIL 2, 1960
VOL. 158 — NO. 14

Telephony®

THE JOURNAL OF THE TELEPHONE INDUSTRY



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13,401 of Which 12,903 Is Paid

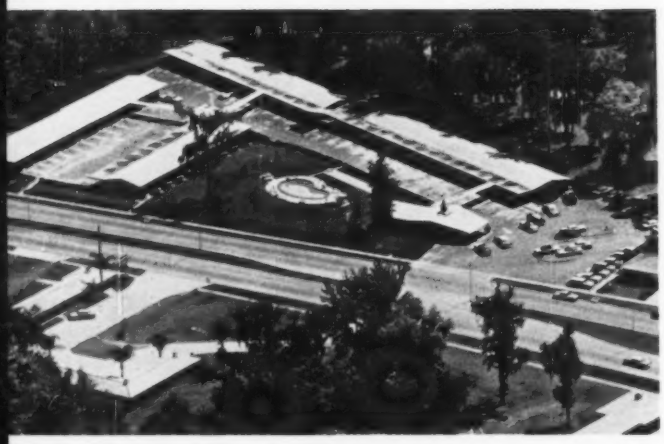
DOUBLE TALK

Technician at White Plains, N. Y. talks to London as he prepares to switch into service a new mechanism that will double capacity of ocean voice cables. See page 38 for further details.

MANAGEMENT • PLANT • TRAFFIC • COMMERCIAL • LEGAL • ACCOUNTING

There's plus

in providing ...for motels



Hotels and motels can no longer rely on service "like the kind you get at home" to bring back guests again. Guests want MORE than that.

A telephone system is a good example. Can a guest dial another room without going through the operator? Can he, by dialing just *one* digit, get the PBX operator? Can he get the hotel garage, room service, or maid service by one-digit dialing?

These are examples of the extras offered by leading hotels and motels.

All of these extras, and others, are available to you with Stromberg-Carlson's PBX systems. Here are some examples.

On trunk calls, your system can be arranged so that a guest can dial one digit to get an outside

business for you

PBX service "tailor-made" and hotels

line, then dial the complete number himself. Charges on all calls are automatically tabulated.

Direct-dialing toll calls can't confuse the picture. Toll restrictors in the system eliminate this worry. But they don't interfere with local calls placed directly by guests. Guests can make toll calls easily. It's merely a matter of dialing a single digit to reach the public exchange toll operator and having her complete the call.

Here's another big plus. When an outside party calls a guest who is out, there's no need for the switchboard operator to ring the guest's room repeatedly until he returns. With Stromberg-Carlson's PBX system, a light switches on in the guest's room next to the telephone. When he returns, he knows by the visual signal that the PBX operator has a message for him.

Is this Stromberg-Carlson system versatile? You bet it is! It can fit into *any* motel or hotel situation. Additions are easy and can be made at any time.

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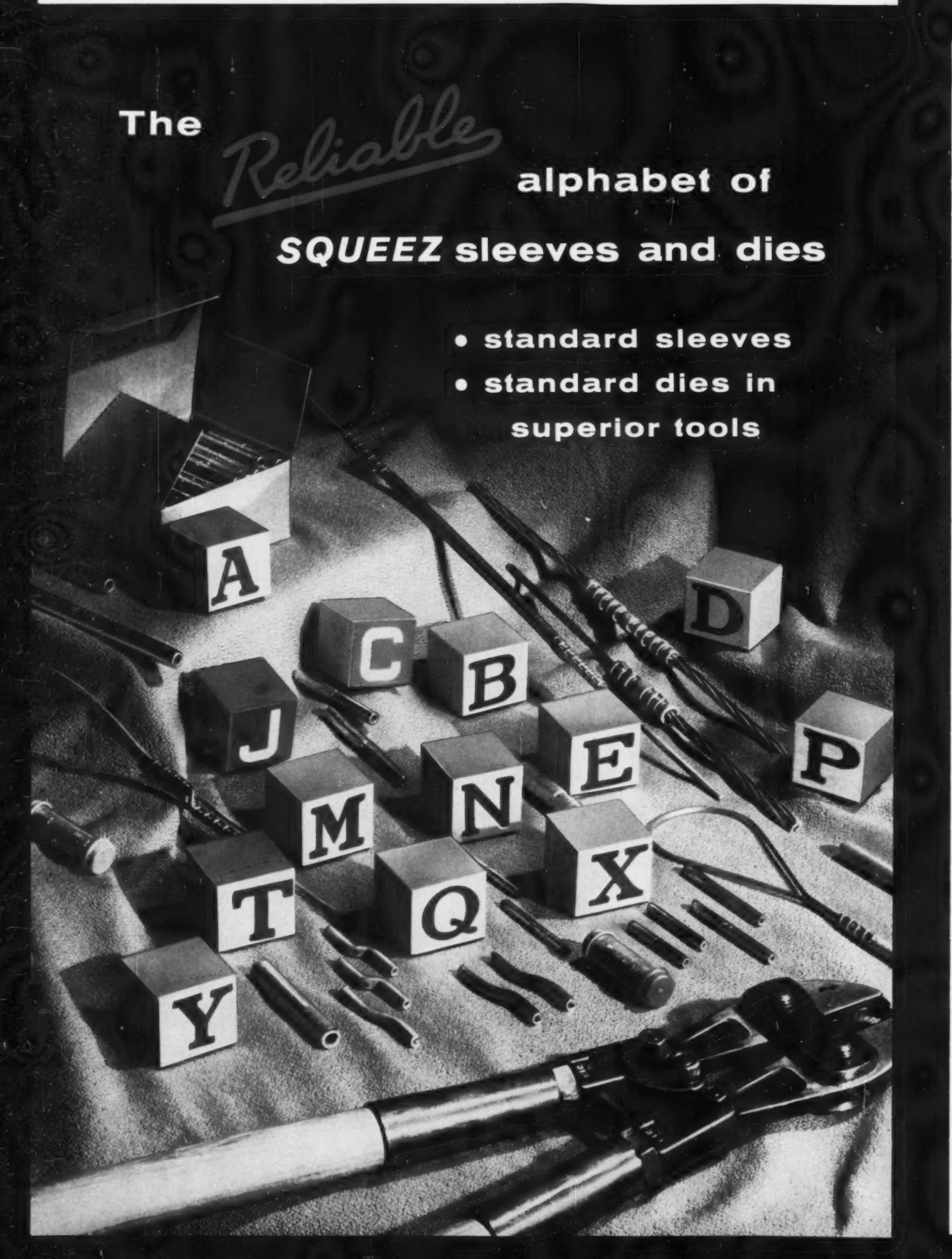
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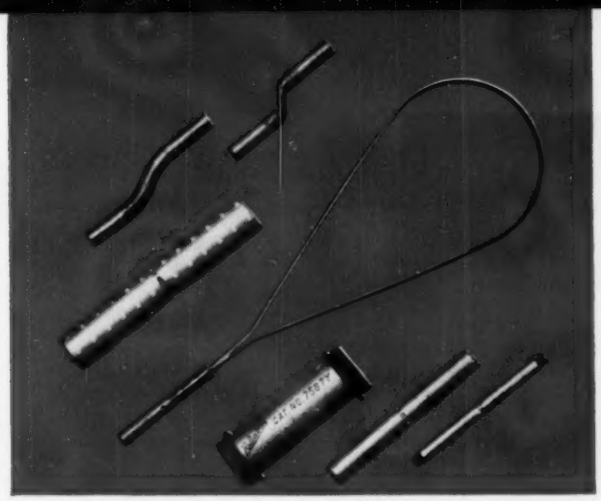

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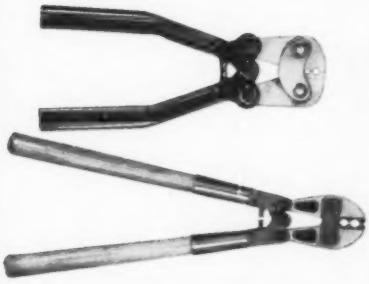

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FLASHES AND PLUGS

PAINS IN THEIR THERMOMETERS. Consider the plight of the weather forecasters during the winter of 1959-60. At Stapleton Airfield, Denver, they have maintained telephone vigils for as long as 10 hours daily it is reported. Seven weathermen, including the supervisor of aviation forecasting, Keith Leatherwood, take an estimated 300 telephone calls on a normal day, and 1,000 in bad weather.

Pilots, of course, ask for weather for their flights. Average citizens have an insatiable curiosity to know whether it will rain, or snow again, and if the roads are passable.

Ever-alert telephone companies and other utilities inquire whether the weather is going to be a "big brew" calling for extra men on the job.

Others who call, says the Denver *Post*, are businessmen whose livelihood is geared to quirks of the weather; people who bet on the weather; suspicious wives who think husbands' excuses about weather delays are improbable; and kids in a school project who want the forecasters' help on climate, say, in Addis Ababa.

Finally, there are those furious critics of the weather (who loathe snow shovels, wearing galoshes and refilling the bird feeder) who blame the weathermen!

•

CALLING ALL TERRIERS, TOO. In the city of Milwaukee, Wis., which has experienced a long and rugged winter, some of the fire hydrants were lost. They were buried deep beneath snow pushed back and piled high by the city's snow plows.

City Fire Chief Edward B. McCabe and William J. Rheinfrank, superintendent of street sanitation, asked citizens to telephone if they knew where hydrants were buried.

Water department maps show streets on which hydrants are located, but they do not pin-point the exact locations. To make location more difficult, some of the newer hydrants are only 18 inches high while the older ones measure 24 inches.

•

DRAFTING SOMETHING SILENT. Anent the unlisted telephone number, Neil Morgan, columnist for the San Diego, Cal., *Evening Tribune*, tells a story about local residents, the Gus Parkers, who were disturbed by so many wrong number calls that they obtained an unlisted number when they moved into their new apartment.

Oddly, then, their telephone didn't ring at all, even when Mr. Parker tried to call his wife.

A telephone trouble-shooter learned in a few days why the Parkers' telephone was out of order. The Parkers thought they had the number CYpress 7-6166, but this turned out to be the number of the drafting department of the Pacific Telephone & Telegraph Co.!

CHANGE OF ADDRESS

Please notify your local postmaster and the Circulation Department of TELEPHONY of change of address. Change cannot be made without the old as well as the new address. Allow three weeks for change of address to become effective.

Telephony

THE JOURNAL OF THE TELEPHONE INDUSTRY
Since 1901

April 2, 1960

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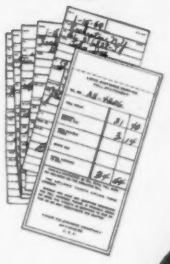

200 toll calls or 2, you make only 5 entries per bill at most when you bill toll call tickets the easy Recordak way. Descriptive billing—and all those entries and descriptions of each toll call—go out the window!

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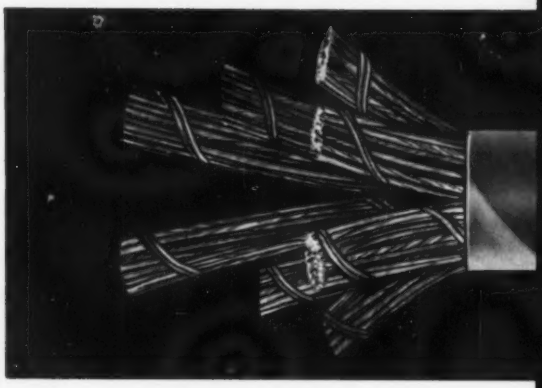

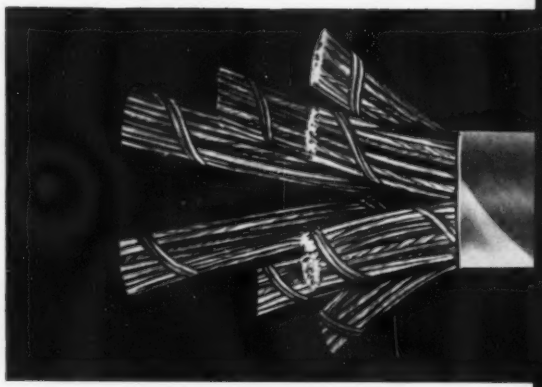

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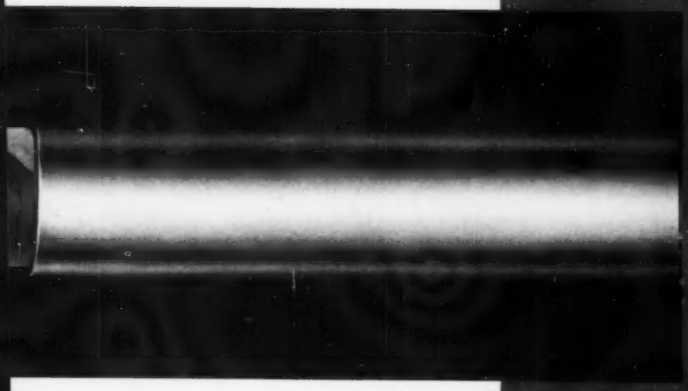
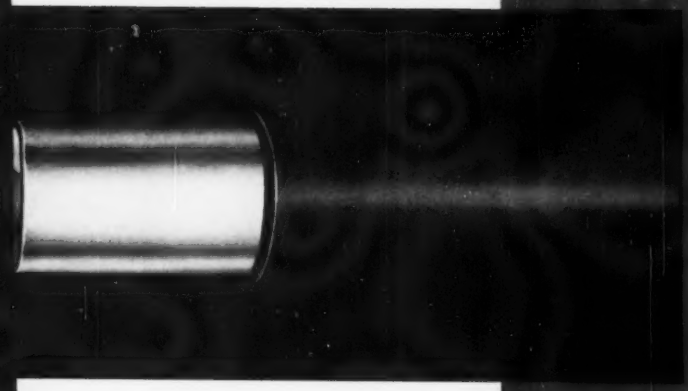


ALS

(Paper Insulated—Aluminum Sheathed) for aerial use.



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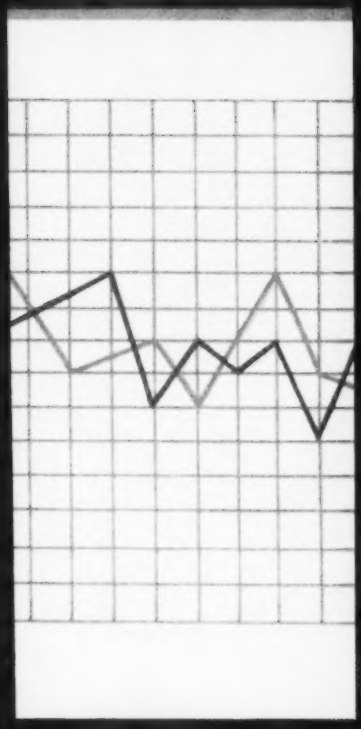

Are you operating your company as a HOBBY OR A BUSINESS?

No business can endure without profit.

The key to profit is, of course, **increased** revenue! For the operating telephone company extension installations offer the prime opportunity to realize revenue increases!

The Ericofon is the biggest boost you can give yourself in your extension promotions! Subscribers want Ericofons—this has been proven over and over! **No other telephone** has the built-in appeal of the Ericofon, the built-in convenience of the Ericofon, the built-in beauty of the Ericofon, the built-in profit potential of the Ericofon.

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NORTH ELECTRIC COMPANY

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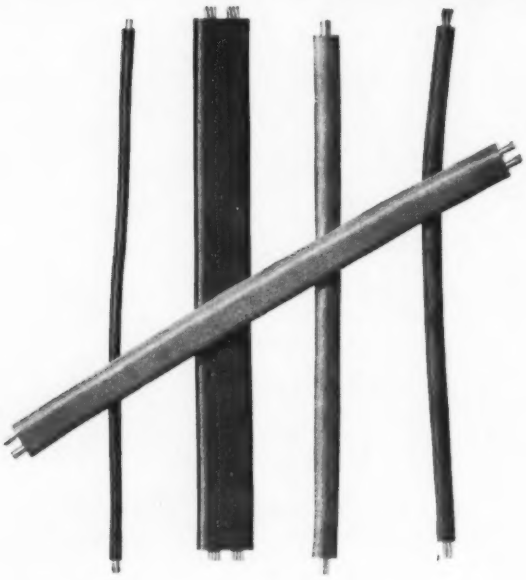

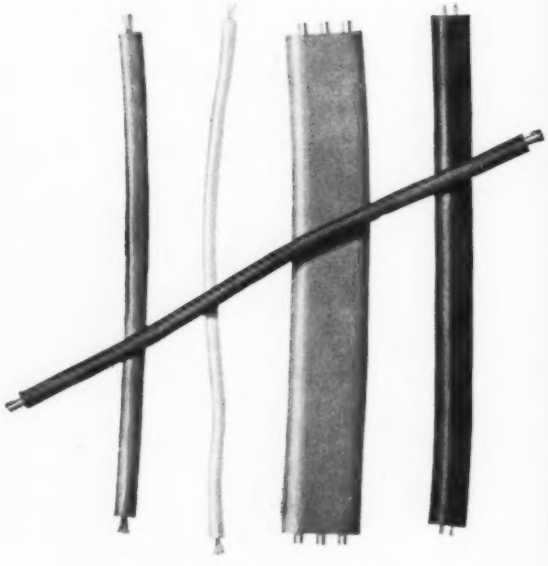

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IPCEA Appendix I.

ASTM D-734.

MIL-W-76A, Types LW, MW, and HW.

U.L. 80°C. appliance wire.

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REA Spec. PE-14.

IPCEA, Appendix J.

IMSA, Spec. 19 and 20.

Inside-outside telephone cable (Staple Gun Wire).

Jan-C-17A Type I.

MIL-C-15479A (Harbor Defense).

IN THE NATION'S CAPITAL

BY FRANCIS X. WELCH, WASHINGTON EDITOR
AND EDITOR, PUBLIC UTILITIES FORTNIGHTLY

Edward K. Mills Jr. appointment to FCC expected to be confirmed by Senate. Electric utilities consider using auto driven by electricity. Comments on industry growth.

PRESIDENT Eisenhower turned to a well-tried source, for a replacement of John C. Doerfer, who recently resigned as chairman of the Federal Communications Commission. Doerfer's position as chairman has already been assumed by Frederick W. Ford, another member of the commission. The resulting vacancy was filled on Mar. 24 with the appointment of Edward K. Mills Jr., a prominent New Jersey lawyer and a former mayor of Morristown, N. J.

Mills is no stranger to federal service and had previously been offered the opening on the FCC following the resignation of former chairman George C. McConnaughey in June 1957. But he declined to take the office at that time because other arrangements had been made for the chairmanship. However, the President did prevail on Mr. Mills to fill the Doerfer vacancy in view of the fact that it has only another 15 months to run and Mills is not keen on making a lifetime career out of public service.

Born at Morristown, N. J., Mar. 19, 1906, Mills attended Exeter Academy, Princeton University (AB, '28), and also graduated from Yale Law School (LLB, '31). He practiced law in Newark, N. J., for some years with a well-established firm specializing in railroad and security matters. He first entered federal service as senior attorney in charge of the Opinion Section of the Civil Aeronautics Board. And during World War II he served with the Joint Chiefs of Staff and held the rank of a major in the U. S. Army Air Corps.

Following the war he practiced law with his own firm, Mills, Jeffers & Mountain of Morristown. He became active in Republican politics, leading to his election as Morristown's mayor. Sometime after the Eisenhower administration was installed, Mills became deputy administrator of the General Services Administration. He tried to resign a couple of times to return to private practice, but was pressed by Franklin G. Floete, head of General Services Administration, to remain. He finally resigned last December.

So, now Mills comes back to Washington again, upon the urging of President Eisenhower and with the support of New Jersey's Senator Case and Representative Frelinghuysen, both Republicans. Although he has no special background of knowledge in the television or radio industry, Mills has a reputation for integrity, hard work, and knowledge of the law in addition to his administrative experience. His background of railroad legal practice gives him an easy familiarity with principles of utility regulation. Mills' appointment is subject, of course, to Senate confirmation. But in view of his previous government experience, substantial opposition seems unlikely.

Mills is quite frank in expressing his general ideas about the propriety of government agency and business contacts at the regulatory level. On the day of his appointment he told the press that he considered unofficial contacts between the FCC commissioners and broadcast officials "out of order."

On the other hand, Mills apparently does not share the view that the federal government should rush in and assume the role of program director for radio and television. He told the newsmen that he thought the government had no business "trying to determine what program should be offered to the American public by radio and television."

What about the quiz program scandals, "payola," etc.? Mills hopes the public will regulate such abuses. He told a newsman that public demand could bring about an improvement in program standards. Mills feels that the public has already indicated it wants less "emphasis on crime and violence" in radio and TV shows. With respect to the quiz scandals and disc jockey's payola, he said: "It is discouraging to find this type of thing going on and it should be eliminated." But he did not want to spell out his views on the role of the Federal Communications Commission in correcting such situations. He points out that he has not been confirmed by the Senate and he would be prejudging the case before hearing all the evidence if he attempted to voice detailed views at this time.

Electric Auto for Utilities

Telephone industry people might well be interested in a development in the electric utility field, disclosed at Boca Raton, Fla., on Mar. 21 at a meeting of the Southeastern Electric Exchange. It was there revealed that B. L. England, chairman of the board of the Atlantic City Electric Co., had taken the lead in arranging with a private manufacturer to develop a com-

plete all-electric automobile which could be used by meter readers, bill collectors, salesmen, and home service groups. This car should cause the commercial gasoline automobile manufacturing industry no concern as the introductory model will sell for about $3,500. It will have a top speed of 35 miles an hour, with cruising ranges from 40 miles a day, if run constantly, or from 50 to 60 miles if operated with frequent stops. The batteries regenerate, to some extent, during stops of 15 minutes or longer.

The electric utility industry, of course, has a special interest in the development of such a car, even under such high initial cost (it, of course, does not offer any real competition in the gasoline automobile market). By recharging from ordinary outlet sockets in the utility company's garage, an offpeak load is established which would make fuel operating cost of about $50 a year, compared with over $700 for gasoline purchased for comparative mileage. The life of such cars would be very long, indeed.

Electric motors run indefinitely (30 years or more), with only an occasional change of brushes. Battery replacement, however, would be needed about every two years at a cost of about $200, unless some longer lasting type is developed. The car body used is that of the Renault Dauphine. The "Kilowatt," as the new car has been named, is powered by 36 two-volt batteries (18 under the front hood and 18 in the rear). A conventional small battery of 12 volts is used for lighting. There are no gears. A simple forward or reverse switch is located on the dash.

Mr. England told the other electric utility executives at Boca Raton that tentative orders had been placed for 76 of the cars. Other utility company officials interested were invited to contact the New Jersey manufacturer. There is some skepticism, however, even among the electric utility group. England discounted the tendency to wait until a "miracle battery" will give the electric auto a range of 100 miles, with speeds up to 55 miles an hour.

What the electric utility boys would like to see, of course, would be a mass market develop for such cars, along with a miracle battery so compact as to be ready and interchangeable at the neighborhood service station. The service station would then be in the business of selling "canned electricity" (battery recharge rentals) instead of selling gasoline. That would be a nice load builder for the electric utility industry—but the oil industry will have something to say about that before it happens.

REA Approves Loans in California, Virginia

During the week of Mar. 14, the Rural Electrification Administration announced approval of loans totaling $82,000, which will make possible new or improved telephone service for 754 subscribers.

The Tuolumne (Cal.) Telephone Co.; $40,000; Mar. 16.

This loan will help provide telephone service to 106 new subscribers and to improve service for 568 existing subscribers. The borrower plans to repair its commercial office building in Tuolumne.

When all construction is completed under this and previous REA loans the borrower will be serving 674 subscribers.

•

The Buggs Island Telephone Cooperative, Chase City, Va.; $42,000; Mar. 16.

The loan will enable the company to finance construction to serve 80 new subscribers and to complete previously approved construction.

The cooperative operates two dial exchanges at Beechwood and Blackridge serving 363 subscribers.

REA has now approved a total of $273,000 in loans to this borrower, and when all construction under the loans is completed, the cooperative will be serving 512 subscribers.

Growth vs. Unit Contraction

The figures recently released by the USITA on the status of the Independent telephone companies as of the end of 1959 continues a pattern established some years ago. It is a pattern of growth, both in the volume of business and the number of telephone customers and stations. But with respect to the number of companies, it is a pattern of contraction.

These USITA figures show that the Independent companies had a station gain of 5.9 per cent over 1958 and an increase of investment from $3,187,050,000 to $3,630,298,000. During the same period, mergers and consolidations had caused a *decline* in the total number of Independent companies from 3,876 to 3,560. Through 1959, the number of Independent telephone service stations *increased* from 10.1 million to 10.7 million (the basis for the stated gain of 5.9 per cent).

The number of Bell System operation telephone companies remained constant, at 23, as it has for many years. How does this compare with nonregulated industry and other regulated utility industries? As a matter of fact the downward trend in the number of Independent telephone companies is a continuation of a trend of consolidation which had already been completed and followed by stabilization in earlier years among the gas and electric utilities. In the nonregulated industries the pattern is more irregular. There were fewer companies during World War II as compared with the prewar period, but many *more* companies in 1959.

But to go back and recapitulate. The number of operating electric utility companies in the United States, proper, *decreased* slightly, in the five-year period ending in 1959 (about 2 per cent). Compare this with the loss in the number of Independent telephone companies in the Independent industry of nearly 9 per cent in a single year. In the gas utility field there was even an *increase* during this same five-year period. According to Brown's *Directory of American Gas Companies* there were 970 in the United States proper for 1958 compared with 956 in 1953. One explanation for this might be the increased gas utility activity due to the introducing of natural gas in areas which did not have it before.

What about the non-utility field? Well, that seems to come and go. Before World War II, the total number of business corporations was about 10 per cent more than the 3 million figure (for both small and large business) which prevailed during the war years. But now the over-all figure is up to about 4.5 million. The significance of this is that there is still plenty of punch left in the enterprise system. And the outstanding fact is we have more business firms in operation today than ever before in our history.

Co-op Operations in Colorado

By a vote of 4-to-2, the Colorado Supreme Court has ruled that two large electric utility companies rather than a Rural Electrification Administration cooperative have the right to serve the rapidly expanding Denver suburban area. The privately owned companies are Public Service Co. of Colorado and Colorado Central Power Co. Presumably, the same law would hold true for REA telephone cooperatives in relation

(Continued on page 56)

today's Highlights

of finance-taxes-business trends

by Willard F. Stanley

BOND PRICES IMPROVE: A somewhat surprising development in the 30 days ended Mar. 21 was a moderate further improvement in the bond market. This followed a modest upturn in the 30 days preceding. Apparently money demands have not been as heavy as contemplated. Business activity continues at a rapid pace but here and there changes in the generally expected pattern have occurred. Inventories, for instance, have reached a substantially higher level than anticipated, with a probable reduction in borrowings for this purpose.

After registering at Feb. 18 a 10-decimal (0.10 per cent per annum) reduction in yields based on average bids for new utility issues over the yield based on average original offering prices thereof, this trend was continued in the Wall Street Journal's tabulation of 13 new utility issues as of Mar. 17. At that date a nine-decimal (0.09 per cent per annum) yield reduction was registered for average bids versus average offering prices. Assuming each tabulation reflects a trend for about the preceding 30 days, we have an aggregate decline in yields in about 60 days of nearly 1/5th of 1 per cent (0.20 per cent) per annum. This is a considerable decline—relatively unexpected at this time and to this degree.

Recent new funded debt offerings of utilities have also reflected the higher bond prices registered over recent weeks. A triple "A" rated security recently came to market at a 4.88 per cent yield, somewhat lower than in the recent past. A double "A" rated issue came out on a 5 per cent yield basis, but another, with the benefit of a five-year prohibition against redemption for purposes of interest saving, was priced to yield only about 4.73 per cent, indicating about a ¼ per annum interest differential for the redemption prohibition.

In the short-term money market recent trends have been even more favorable to borrowers. Ninety-day Treasury bills, after dropping from a 4.2 per cent yield basis in mid-December to a yield of about 3.6 per cent about a month later, swung back to about the 4.2 per cent level again by mid-February, only to fall as of Mar. 2 to as low as around 3.00 per cent. Swings in short-term indebtedness have been more rapid and pronounced than in longer term issues. Present trends discount likelihood of an increase either in the prime commercial bank rate or in Federal Reserve rediscount rates in the near-term future. Many feel the lower money costs are temporary and that, barring an unexpected quick slump in business activity, higher interest rates may still be experienced this year. It now looks, however, like a

Mr. Stanley, formerly a utility financial executive, is now president of Corporate Services, Inc. of New York City and is well known as a financial writer. He is a member of the Controllers Institute of America and the New York Society of Security Analysts. He serves on the Finance Management Committee and the Tax Committee of the Controllers Institute (N. Y. Control). His articles are appearing once a month in TELEPHONY.

toss-up whether rates for the year will rise or fall (net) as against conditions prevailing when 1960 began.

While conditions are more favorable than a few months back, there seems to be no justifiable reason for utilities to raise funded debt funds otherwise than in a normally scheduled course, planning to have the money available about as needed. The federal securities situation, which continues to deserve constant attention, seems to have developed a probability of delay in Congressional action permitting federal debt of more than five-year maturity to be issued at rates above 4¼ per cent. After getting through the House committee a bill to loosen the present restriction on a basis reasonably acceptable to the Treasury, opponents of any action in the interest rate matter have used the improvement in the money markets to prevail upon Speaker Rayburn to postpone House action indefinitely on this issue—apparently on a "wait-and-see" basis. While the delay is naturally distasteful to the administration, it is favorable to funded debt issuers, for it postpones the time when the Treasury can offer 10-year or longer maturities in competition with utility funded debt offerings.

Utility common stocks continue to sell at price-earnings ratios favorable to utility issuers of this type of security. With approximate average common stock money costs still somewhere around 6 per cent (before selling expenses), sale of maximum equity for funds needed for the next two years or so still seems indicated as a wise course. Only in those special cases where substantial earnings improvement is anticipated in the near-term future, would postponement of sale of common stock appear to be warranted.

* * * *

STOCK MARKET STILL SLIPPING: Stock averages swung back and forth in a hesitant way with relatively little net change during the period from Feb. 23 to Mar. 22. The New York Times 50-combined-stock average showed, for this period, a decrease of about 2 per cent. At Mar. 22 this average was approximately 10 per cent below Jan. 1, 1960, and just about where it was at Dec. 31, 1958. As a result of the two-fold impact of lower stock prices and higher earnings per share, average price-earnings ratios for industrial stocks declined from a recent-year top of around 20 to something near 16. Meanwhile the utilities price-earnings ratios have registered a drop from about 18.5 to around 16.5. In neither case, however, has the market decline been as great, since higher per share earnings have partially offset the lower value placed on each dollar of earnings in the market. At present levels most utilities seem likely to substantially hold their ground in the market regardless of the trend of industrial stock prices, barring, of course, an unexpectedly heavy decline in all averages. Utilities still carry the banner of combined appeal as tops on the defensive, plus interesting possibilities for reasonable appreciation.

* * * *

TAX PROSPECTS: Income tax laws and rates seem unlikely to be changed materially this year, despite the pressure of the Presidential election. The call for more defense spending and considerable doubt whether the 4.2-billion-dollar originally estimated budget surplus for the forthcoming federal fiscal year can be realized, combine to create a political atmosphere inimical to major tax rate slashes. At most, some plugging of loopholes and loosening of overtight squeezes may be anticipated.

In social security, however, there seems to be a real chance of some legislative action to broaden and increase payments. It's well to recall that not only have social security tax rates been periodically increased, but also the amount of dollar wages to which the tax applies, thus resulting in a cumulative increase in intake. With an increase in this tax rate having just recently become effective, it seems unlikely that further expense to employers will result shortly, even if some of the liberalization being discussed should be enacted into law.

The Potential Market for

Telephone Answering Devices in the Service Industries

By ALEXANDER I. WARRINGTON*

THIS IS THE fifth installment of Mr. Warrington's article presenting statistics on the so-called service industries, by regions and states, which constitute a big potential market for telephone answering devices. The statistics given in the series should be of value to market analysts in telephone companies and those in charge of marketing telephone services.

The fourth installment was published in the Mar. 26 issue, in which market data were presented for REGION IV. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas.

The first installment, on REGION I. New England — Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut was published in the Mar. 5 issue.

The second installment, on REGION II. Middle Atlantic—New York, New Jersey and Pennsylvania was published in the Mar. 12 issue.

The third installment, on REGION III. East North Central—Ohio, Indiana, Illinois, Michigan and Wisconsin was published in the Mar. 19 issue.

REGION V. South Atlantic — Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida.

(See "Impact of Telephone Communications on Economies of the Various Geographical Regions of the U. S."—TELEPHONY, Aug. 15, 1959).

*Mr. Warrington is an Industrial Economist of Baton Rouge, La., and has authored many articles for TELEPHONY during the past several years.

Delaware

There were 4,400 service units without payrolls and 3,200 with payrolls.

TABLE 1

Total Number of Service Units, South Atlantic Region, 1960

Geographic Region and State	Total Number of Service Units			Percentage Distribution
	Without Payrolls	With Payrolls	Total	
South Atlantic	174,800	190,800	365,600	100.0
Delaware	4,400	3,200	7,600	2.0
Maryland	22,400	20,000	42,400	11.5
District of Columbia	8,000	11,200	19,200	5.2
Virginia	20,400	27,200	47,600	13.0
West Virginia	13,200	12,000	25,200	6.8
North Carolina	26,400	30,400	56,800	15.5
South Carolina	11,200	14,400	25,600	7.0
Georgia	21,200	27,200	48,400	13.2
Florida	47,600	45,200	92,800	25.8

This is the most basic table of the entire series. It is based upon the "1954 U. S. Census of Selected Service Industries," which was adjusted for 1960.

"Service units without payrolls" (first column) are, for the most part, individuals who operate some kind of service establishment as a regular business and without paid help.

"With payrolls" signifies service units that maintain paid employes.

The total of 7,600 was 2.0 per cent of the regional total.

The metropolitan area shown in *Table 2* (below) reflects 78.9 per cent of the state's total service units.

The various potential markets for answering devices are as follows: Primary market, 3,900; secondary market, 800; tertiary market, 900. The total of 5,600 is 2.9 per cent of the total telephones in the state.

Maryland

There were 22,400 service units without payrolls and 20,000 with payrolls. The total of 42,400 was 11.5 per cent of the regional total.

The metropolitan area shown in *Table 2* accounts for 60.3 per cent of all the service units in the state.

The various potential markets for answering devices are as follows: Primary market, 20,000; secondary market, 4,800; tertiary market 5,600. The total of 30,400 represents 2.8 per cent of all telephones in the state.

District of Columbia

There were 8,000 service units without payrolls and 11,200 with payrolls. The total of 19,200 was 5.2 per cent of the regional total.

The metropolitan area shown in *Table 2* (Washington) is greater than the District of Columbia for service units indicated. This is because the metropolitan area extends into both Maryland and Virginia.

The various potential markets for answering devices are as follows: Primary market, 7,200; secondary market, 2,700; tertiary market, 3,100. The total of 13,000 represents 2.2 per cent of the District's total telephones.

Virginia

There were 20,400 service units without payrolls and 27,200 with payrolls. The total of 47,600 was 13.0 per cent of the total service units in the region.

The metropolitan areas shown in

TABLE 2

Total Number of Service Units, South Atlantic Metropolitan Areas, 1960

State and Metropolitan Area	Total Number of Service Units			Per cent of State Total
	Without Payrolls	With Payrolls	Total	
Delaware	4,400	3,200	7,600	100.0
Wilmington	2,400	3,000	6,000	
Maryland	22,400	20,000	42,400	100.0
Baltimore	13,200	12,400	25,600	60.3
District of Columbia	8,000	11,200	19,200	
Washington*	12,800	16,000	28,800	
Virginia	20,400	27,200	47,600	100.0
Norfolk-Portsmouth	3,200	4,800	8,000	16.8
Richmond	2,400	4,000	6,400	13.4
Hampton-Newport News-Warwick	800	1,600	2,400	5.0
Roanoke	400	400	800	1.6
West Virginia	13,200	12,000	25,200	100.0
Wheeling-Steubenville	3,200	2,800	6,000	23.8
Charleston	2,000	2,400	4,400	17.4
Huntington-Ashland	1,600	2,000	3,600	14.2
North Carolina	26,400	30,400	56,800	100.0
Charlotte	1,600	2,400	4,400	7.7
Greensboro-High Point	2,000	2,000	4,000	7.0
Winston-Salem	1,200	1,200	2,400	4.2
Raleigh	800	1,200	2,000	3.5
Asheville	800	1,200	2,000	3.5
Durham	800	800	1,600	2.8
South Carolina	11,200	14,400	25,600	100.0
Charleston	1,000	1,600	2,600	10.1
Greenville	1,600	1,600	3,200	12.5
Columbia	800	1,600	2,400	9.3
Georgia	21,200	27,200	48,400	100.0
Atlanta	5,600	8,400	14,000	28.9
Augusta	1,200	1,600	2,800	5.7
Savannah	1,200	1,600	2,800	5.7
Columbus	800	1,600	2,400	4.9
Macon	800	1,200	2,000	4.1
Florida	47,600	45,200	92,800	100.0
Miami	11,200	12,000	23,200	25.0
Tampa-St. Petersburg	8,800	6,800	15,600	16.8
Jacksonville	2,800	4,000	6,800	7.3
Orlando	2,000	2,000	4,000	4.3

*Government excluded

Information is of the same type as in *Table 1*, except data are for metropolitan areas.

TABLE 3

Market Potential for Answering Instruments for the South Atlantic Region, by Degree of Intensity, 1960

Geographic Region V and State	Number of Service Units			Total Number of Service Units
	Primary Market	Secondary Market	Tertiary Market	
South Atlantic	174,800	57,400	133,400	365,600
Delaware	4,400	1,000	2,200	7,600
Maryland	22,400	6,000	14,000	42,400
District of Columbia	8,000	3,400	7,800	19,200
Virginia	20,400	8,200	19,000	47,600
West Virginia	13,200	3,600	8,400	25,200
North Carolina	26,400	9,100	21,300	56,800
South Carolina	11,200	4,300	10,100	25,600
Georgia	21,200	8,200	19,000	48,400
Florida	47,600	13,600	31,600	92,800

The *primary* market is the market which will require the least effort and the units shown therein are close to the total of the number of answering devices needed. The need is urgent because the operator or the service unit has no tangible human assistance.

The *secondary* market represents service establishments that have one and only one paid assistant. This is also a rich potential market for telephone answering devices. Approximately 80 per cent of service units with one paid employe need answering instruments.

The tertiary market represents the balance of service units and has a potentiality for telephone answering devices of from 30 to 50 per cent of the units shown.

TABLE 4

The Market Potential for Answering Devices, for the South Atlantic Metropolitan Areas, 1960

State and Metropolitan Area	Number of Service Units			Total Number of Service Units
	Primary Market	Secondary Market	Tertiary Market	
Delaware	4,400	1,000	2,200	7,600
Wilmington	2,400	900	2,700	6,000
Maryland	22,400	6,000	14,000	42,400
Baltimore	13,200	3,700	8,700	25,600
District of Columbia	8,000	3,400	7,800	19,200
Washington	12,800	4,800	11,200	28,800
Virginia	20,400	8,200	19,000	47,600
Norfolk-Portsmouth	3,200	1,400	3,400	8,000
Richmond	2,400	1,200	2,800	6,400
Hampton-Newport News-Warwick	800	500	1,100	2,400
Roanoke	400	100	300	800
West Virginia	13,200	3,600	8,400	25,200
Wheeling-Steubenville	3,200	800	2,000	6,000
Charleston	2,000	700	1,700	4,400
Huntington-Ashland	1,600	600	1,400	3,600
North Carolina	26,400	9,100	21,300	56,800
Charlotte	1,600	800	2,000	4,400
Greensboro-High Point	2,000	600	1,400	4,000
Winston-Salem	1,200	400	800	2,400
Raleigh	800	400	800	2,000
Asheville	800	400	800	2,000
Durham	800	200	600	1,600
South Carolina	11,200	4,300	10,100	25,600
Charleston	1,000	500	1,100	2,600
Greenville	1,600	500	1,100	3,200
Columbia	800	500	1,100	2,400
Georgia	21,200	8,200	19,000	48,400
Atlanta	5,600	2,500	5,900	14,000
Augusta	1,200	500	1,100	2,800
Savannah	1,200	500	1,100	2,800
Columbus	800	500	1,100	2,400
Macon	800	400	800	2,000
Florida	47,600	13,600	31,600	92,800
Miami	11,200	3,600	8,400	23,200
Tampa-St. Petersburg	8,800	2,000	4,800	15,600
Jacksonville	2,800	1,200	2,800	6,800
Orlando	2,000	600	1,400	4,000

This table is identical with *Table 3*, except it is for metropolitan areas.

Table 2 account for 36.8 per cent of the total service units in the state.

The various potential markets for answering devices are as follows: Primary market, 18,500; secondary market, 6,600; tertiary market, 7,600. The total of 32,700 accounts for the state's total telephones to the extent of 2.9 per cent.

West Virginia

There were 13,200 service units without payrolls and 12,000 with payrolls. The total of 25,200 was 6.8 per cent of the regional total.

The metropolitan areas shown in *Table 2* account for 55.4 per cent of all the service units in the state.

The various potential markets for answering devices are as follows: Primary market, 11,800; secondary market, 2,900; tertiary market, 3,400. The total of 18,100 reflects 3.8 per cent of the state's total telephones.

North Carolina

There were 26,400 service units without payrolls and 30,400 with payrolls. The total of 56,800 was 15.5 per cent of the total for the region.

The metropolitan areas shown in *Table 2* account for 28.7 per cent of all the service units in the state.

The various potential markets for answering devices are as follows: Primary market, 21,200; secondary market, 7,300; tertiary market, 8,600. The total of 37,100 accounts for 3.9 per cent of the total telephones in the state.

South Carolina

There were 11,200 service units without payrolls and 14,400 with payrolls. The total of 25,600 for the state was 7.0 per cent of the regional total.

The metropolitan areas shown in *Table 2* account for 31.9 per cent of all the service units in the state.

The various potential markets for answering devices are as follows: Primary market, 10,000; secondary market, 3,700; tertiary market, 4,100. The total of 17,800 accounts for 3.9 per cent of the total telephones in the state.

Georgia

There were 21,200 service units without payrolls and 27,200 with payrolls. The total of 48,400 accounted for 13.2 per cent of all service units in the region.

The metropolitan areas shown in *Table 2* absorbed 49.3 per cent of the state's total service units.

The various potential markets for answering devices are as follows: Primary market, 18,900; secondary market, 6,600; tertiary market, 7,600. The total of 33,100 represents 3.4 per cent of the state's total telephones.

Florida

There were 47,600 service units without payrolls and 45,200 with payrolls. The total of 92,800 was 25.8 per cent of the region's total.

The metropolitan areas shown in *Table 2* account for 53.4 per cent of all the service units in the state.

The various potential markets for answering devices are as follows: Primary market, 42,500; secondary market, 10,800; tertiary market, 12,500. The total of 65,800 accounts for 4.4 per cent of all telephones in the state. (This is very high but the economy of the state explains this high percentage.)

TABLE 5

Percentage of Total Telephones Absorbed by Service Units, in the Primary, Secondary, Tertiary Markets for Answering Devices

Geographic Region V. and State	Total Number of Telephones	Percentage of Total Telephones Absorbed by Service Units			Total Number of Telephones
		Primary Market	Secondary Market	Tertiary Market	
South Atlantic	7,352,900	2.3	0.7	1.8	100.0
Delaware	190,000	2.1	0.5	1.1	100.0
Maryland	1,108,800	2.0	0.5	1.2	100.0
District of Columbia	581,400	1.3	0.5	1.3	100.0
Virginia	1,114,100	1.8	0.7	1.7	100.0
West Virginia	478,600	2.7	0.7	1.7	100.0
North Carolina	947,800	2.7	0.9	2.2	100.0
South Carolina	452,300	2.4	0.9	2.2	100.0
Georgia	972,400	2.1	0.8	1.9	100.0
Florida	1,507,500	3.1	0.9	2.0	100.0

This table should be useful to market analysts in making more detailed analyses and also in adjusting *Tables 1* through *4* annually. The adjustment of *Tables 1* through *4* can be made by using total telephones as a base. With the elasticity that is provided by *Table 5*, *Tables 1* through *4* should prove of service for at least five years.

Obituaries

CHARLES F. PARRETT, 46, manager of the Greencastle exchange of the General Telephone Co. of Indiana, died on Mar. 11.

Mr. Parrett was a native of Colfax, Ind., and had been associated with the General company since 1936.

He had been manager at Angola and commercial manager at La Porte. He had also served as manager at North Manchester.

From 1948 to 1950, he had been sheriff of Cass County, Ind.

Survivors include his wife; his daughter, Doris Jean; two sisters, Mrs. Doyne Cox of Indianapolis and Mrs. Joann Jones of Logansport, and a brother, Albert Parrett of Logansport.

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CLAUDE E. FERRY, 78, manager of the Marion exchange of the Urban Telephone Co., Clintonville, Wis., died recently, it was reported on Mar. 16.

View of the Good Life

"With steady employment and production, and in no other way, we have the good life for all. They are inseparable — production and employment. Lose one and you lose the other; stifle one and the other expires. There is no one on the earth who doesn't benefit from useful production and employment —and the steadier the better."—ROGER M. BLOUGH, *chairman of the board, United States Steel Corp.*

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With no separate couplings to handle or attach on the job, Orangeburg CA lays faster, costs less to install. Each long, light length has a *flush* coupling attached at one end and a standard 2° male taper at the other end, making installation a simple, one-step operation. And, since the coupling *is* attached, there are no coupling cartons to warehouse or carry to the job.

What's more, with the coupling *flush* to the conduit's outside wall, new CA is easy to stack, store and handle. The flush coupling also eliminates "staggered" joints in the trench. And that means real savings in cutting and tooling time.

Like the hundreds of millions of feet of Orangeburg fibre conduit in use since 1893, new CA has self-sealing joints and impermeable walls. Its smooth, 100% fibre raceway adds years to cable life.

New Orangeburg CA is available in 2", 3", 3½", 4", 4½" and 5" sizes. Orangeburg Standard and Nocrete Conduit, with separate sleeve couplings, are available as always. Write Dept. T-40 for Catalog 52.

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THE Plant Man's Notebook

BY RAY BLAIN, TECHNICAL EDITORIAL DIRECTOR

WE HAVE RECEIVED a nice letter from C. J. Mathews, president of the Georgia Telephone Association, in which he comments on the item contained in the Feb. 27 issue of TELEPHONY about the writer's recent visit to Atlanta.

Mr. Mathews agrees 100 per cent with our statement that the southeastern section of the United States is indeed on the rise again. He states further that the Georgia Independent telephone companies are definitely playing a most important part in this southern prosperity. Moreover, since over half the area of Georgia is served by Independent telephone companies, it goes without saying that they, too, have a great deal to do with promoting the growth of the state as a whole.

Another item of interest to all Independents is reported by Mr. Mathews. On Mar. 16, the Georgia Telephone Association, along with the Dixie Telephone Co., celebrated the conversion of the last magneto telephone exchange in the state to dial. This is an accomplishment of which the Independent industry should be extremely proud.

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The North Electric Co., in a recent Ericofon advertisement, asks the question, "Are you operating a telephone company or an antique shop?" which reminds us of a letter recently received from a reader asking for help in locating trouble on an old Monarch magneto switchboard.

We do not know when the Monarch Co. went out of business, but it is assumed that the age of the switchboard now causing trouble is nearing the half-century mark. The writer believes that it should be retired to an antique shop or a museum. It is extremely doubtful that equipment so old could possibly provide the grade of service required in this modern age.

We drove about 50 miles out into the country from a large midwestern city the other day, and as usual, observed the roadside telephone lines. One open wire line that formerly carried six crossarms of wire had been reduced to three circuits. Obviously, the open wire had been replaced by buried cable. Only a few miles down the road, however, we observed a grounded rural line supported on porcelain knobs. This line paralleled a power line for several miles. We could not help wonder how the rural line subscribers could tolerate this grade of service. We also noted that drops did not extend into some of the farm homes along the grounded line. This we can understand, as perhaps the service is of little value.

In this connection, we hope, and believe, that this is an isolated case. Magneto service and heavily loaded rural lines are rapidly passing out of the picture. Grounded lines have certainly outlived their usefulness.

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We like the idea of multiple drop cable now available. This self-supporting cable may be used in lieu of several separate drop wires. It makes a much neater job, is more serviceable and economical, as well as more trouble-free than separate drops.

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We were informed recently by an engineer from a large operating telephone company that telephone cord service life is not as long as formerly. This is true, despite the fact that present-day cords are of better quality than ever before.

It is believed that one reason for this shorter life is that cords are now in color to match the colored sets. Often, a cord loses its sparkle, or becomes soiled, and a customer will demand that it be replaced long before the time it would cause trouble.

In addition to the above, retractable cords are often abused. Repeated stretching beyond the permissible limit may cause them to loosen and become unsightly so that customers demand their replacement. One case was reported where a teenager pulled the handset from the kitchen telephone to inside the basement door, where he would sit on the stairs and talk to his girl friend privately.

The problem of increasing the service life of present-day telephone cords is receiving much study by the engineers of this particular operating company. We have every reason to believe that they will eventually come up with the answer.

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The use of solderless wrap connections is on the increase throughout the communications industry. This system was first used on factory wiring, and later by equipment installers in the field. It will probably eventually be used on main frames for running jumpers.

Some experimental work has been performed on the development of a tool that will remove the insulation from a wire and then wrap the bare conductor around the terminal. The present system requires that the insulation be removed from the wire prior to insertion in the tool for the wrapping operation.

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Back in 1879, the Chesapeake & Ohio Canal Co. built its own telephone system. This line extended along the canal from Cumberland, Md., in the Alleghenies to the tidewater section of Georgetown, on the fringe of the nation's capital.

This represented a distance of 185 miles, and at that time it was claimed to be the longest single telephone line in the world.

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We are told that the notable thing about America's "leisure class" is that almost everyone belongs to it.

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A diplomat is described as anyone who thinks twice before saying nothing.

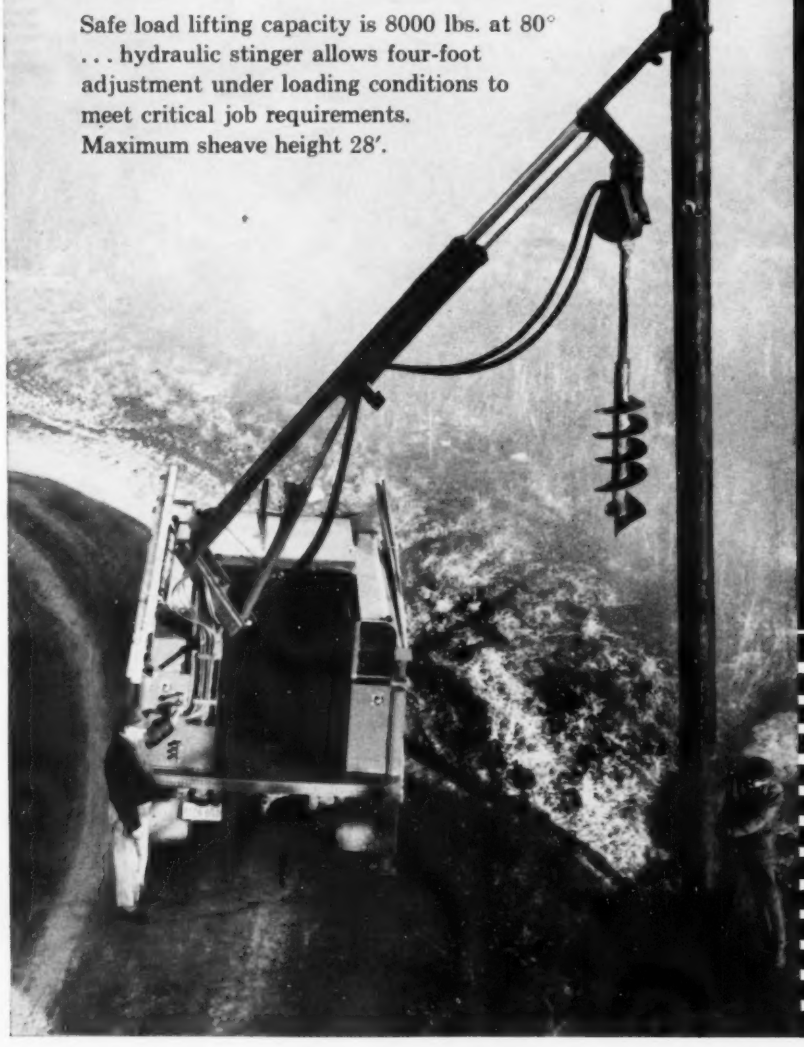
"CD" Radial Arm Hydraulic Derrick

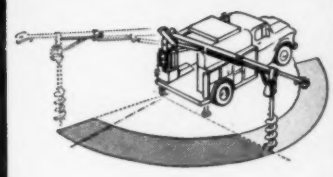
swings to reach tight spots...
reaches out to dig a hole...
reaches up 28′ to set a pole...

The Tel-E-Lect CD Derrick mounts to the *left side* of the body to provide a wider range of operation with more stability . . . greater safety . . . better balance at work or in travel!

This derrick is designed to fit conventional utility bodies. It is furnished as a complete package with the entire hydraulic system factory assembled!

Safe load lifting capacity is 8000 lbs. at 80° . . . hydraulic stinger allows four-foot adjustment under loading conditions to meet critical job requirements. Maximum sheave height 28′.





FULL DERRICK RANGE . . . no need to position truck precisely for digging. Just pull up near pole location and let the Tel-E-Lect CD and digger reach out . . . in . . . or around to dig the hole exactly where you want it! Same feature makes pole setting . . . all derrick work easier!

LOADS INTO BODY . . . highly maneuverable CD Derrick lifts full capacity loads directly into truck body. Does it more safely, too, thanks to minute adjustments up, down or around now possible. Ideal for a combination yard and road truck.

TEL-E-LECT
PRODUCTS, INC.

Today, return coupon and get complete information on new, low cost CD Radial Arm Derrick!

TEL-E-LECT PRODUCTS, INC.
10001 Minnetonka Blvd.
Minneapolis 26, Minn. Dept. T-3

Gentlemen:
I am interested in the Tel-E-Lect CD Radial Arm Hydraulic Derrick!

☐ Please send complete information
☐ Please arrange for a demonstration

NAME _____

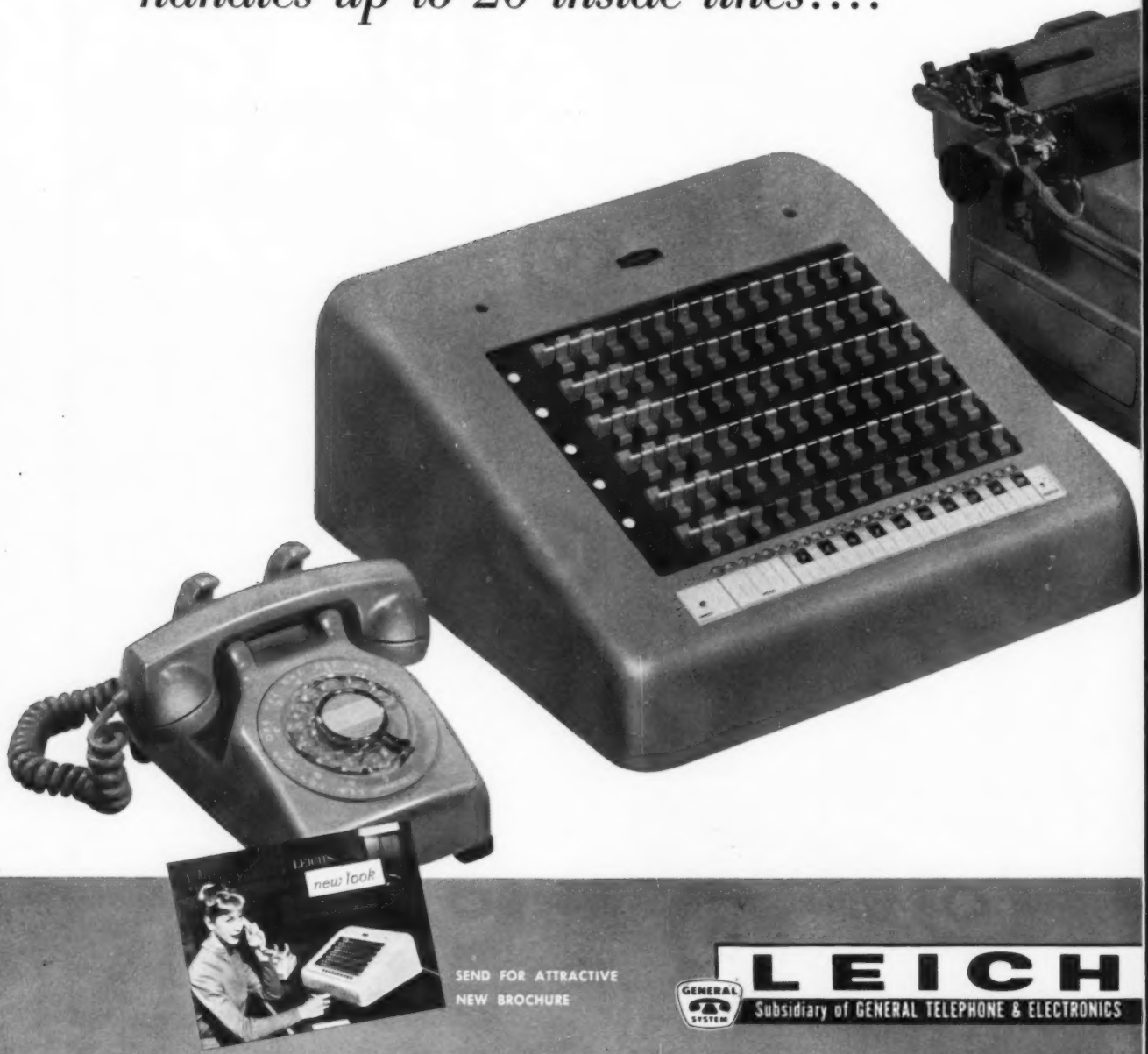
COMPANY _____

ADDRESS _____

CITY _____ STATE _____

LEICH'S *new look*

this compact, lightweight beauty handles up to 20 inside lines....



SEND FOR ATTRACTIVE NEW BROCHURE

LEICH

GENERAL SYSTEM

Subsidiary of GENERAL TELEPHONE & ELECTRONICS

CORDLESS PBX

What could be simpler or easier to handle? Leich's Cordless PBX brings a new concept in style, efficiency and dependability. Any office girl can operate it after a few hours' practice. Perhaps the best thing of all is that Leich's new Cordless handles up to 20 inside lines. This is a real plus in a PBX about the size of an office typewriter. The Leich PBX is truly the new look in business telephone service!

You can offer subscribers excellent delivery because these Leich PBX's are available from stock.

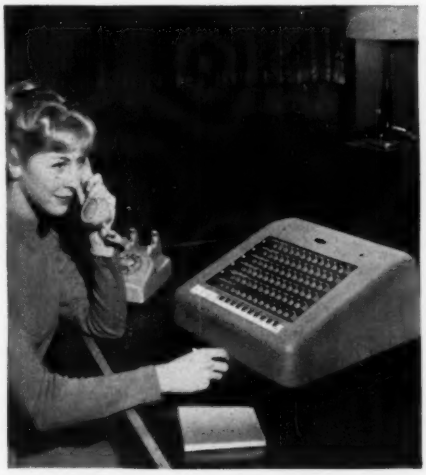
easy to operate

A novel arrangement of colored keys and low, sloping face permits fast, easy extension of calls without reaching or looking up. Keys are color-coded for greater visibility.

Odd numbered station line keys are beige, even numbered black, trunk and operator keys gray.

What's more, each key has only one operative position. This eliminates the confusion of cam-type, two-way keys. To simplify operation further, alternate keys operate in opposite directions.

Supervisory lamps show when a party has disconnected, or is signaling. Busy lamps indicate stations and lines in use.



modern...compact

The Leich PBX is only slightly larger than a typewriter, 16½" long, 16" wide, 7½" high . . . and weighs only about 47 pounds.

It fits easily on the corner of a desk. Plenty of desk space remains for other office duties.

Leich's Cordless gives a new approach to styling. The neat lines and neutral gray finish of the cabinet make an attractive addition to any office. Its sloping face is similar to the latest business machines.

LEICH SALES CORPORATION • 427 WEST RANDOLPH STREET • CHICAGO 6, ILLINOIS

PACIFIC COAST: 11401 W. PICO BLVD., LOS ANGELES 64, CAL.
EAST: 3651 CONNECTICUT AVENUE, YOUNGSTOWN, OHIO
SOUTHWEST: 1227 SLOCUM STREET, DALLAS 7, TEXAS
SOUTHEAST: 5126 SOUTH LOIS ST., TAMPA 11, FLORIDA

manufacturers of telephones, switchboards and related apparatus since 1907

Officers and directors of the Texas Telephone Association. Seated, left to right: W. G. Winters of Houston; A. L. Robb of Electra; Pam D. Grinstead of Kerrville; H. Y. Price, Jr. of San Marcos; Marion A. Clay of Lufkin; J. B. Haley of Austin, and D. G. Gardner Jr. of Nocona. Standing, left to right: D. T. Strickland of Brownwood; R. A. Goodson of Dallas; C. A. Hendrix of Brazoria; Dee Cole of Greenville; Guy Smelser of Bogota; Cliff Dowd of Hawkins; J. T. Chambers of Tenaha; J. B. McDuff of Crockett; Fabian Bearden of Baird; Claud A. Gilmer of Rocksprings; C. G. Mendenhall of Anahuac, and E. H. Danner of San Angelo.

Texans Stress

- *Marketing*
- *Mark-Sensing*
- *Buried Plant*

By R. C. RENO

MARKETING, mark-sense toll tickets and buried cable and wire—three developments of paramount interest in the telephone industry—received top billing at the annual convention of the Texas Telephone Association.

The convention was held Mar. 6, 7, and 8 in Dallas and the sessions were presided over by Association President D. G. Gardner Jr. and Vice President Marion A. Clay.

The subject of marketing and selling was covered by Allan R. Stacey of Sunland, Cal., vice president and manager of Sunland-Tujunga Telephone Co. Mr. Stacey also is chairman of the Telephone Marketing Committee of the United States Independent Telephone Association.

He observed that many telephone companies today are failing to appraise realistically both subscribers' needs, and the service they provide, for three specific reasons:

(1) They have lost personal contact with their customers.

(2) They are failing to meet competition.

(3) They are not acting as if they truly believed in making a profit.

The loss of customer contact has resulted from mechanization and the increasing size of many telephone companies, Mr. Stacey said.

"One of the best ways to solve this problem is for telephone companies to initiate aggressive selling programs which will restore contact with subscribers. In such a program, employes will go to the subscribers' places of business or to their residences, thereby effecting occasional direct contact with them," he said.

"Many telephone companies are failing to meet competition in the communication business because they are not maintaining their prewar proportion of the consumer's dollar," Mr. Stacey pointed out. Referring to families that have a second car, TV or radio sets, Mr. Stacey brought out that barely more than 25 per cent of the homes in the U. S. have a second telephone, showing that people are spending more for other things than for telephone service.

He also referred to the competition confronting telephone companies from private mobile radio service, plastic telephone directory covers, and private intercom systems, which he says will increase in the future.

Mr. Stacey said the only way to meet this competition is for telephone companies to adopt and maintain aggressive selling of good quality service and to offer customers the type of service they need and demand.

In connection with profit, Mr. Stacey said that, for the most part, telephone companies must sell the items of serv-

(Continued on page 34)

BARTLETT

More than 13 years ago Bartlett successfully pioneered the use of the helicopter for shade tree spraying—an operation that was to lead the way, a few years later, to a new efficient method of control of woody plants along utility rights-of-way.

At first, difficult terrains presented unusual problems but gradually through research and experience, new equipment was developed and new herbicides and techniques perfected to overcome them. Today, Bartlett research in this important field is carried on continuously through college fellowships and at the Bartlett Research Laboratories.

If your right-of-way clearance, line trimming, brush control or tree survey requirements present a problem, we invite you to share our years of experience. This service is now available from Maine to Florida, and west to Illinois and Alabama.

The Bartlett Way

BARTLETT TREE EXPERTS

Home Office, 2770 Summer Street, Stamford, Conn.
Research Laboratories and Experimental Grounds, Stamford, Conn.
Bartlett School of Tree Surgery, Stamford, Conn.

new SPACE-MAKER* phone

fits anywhere in the home
helps you sell more extensions

Only with AE's new Space-Maker phone can subscribers have a handy extension *anywhere in the home.* Here's why:

Only Space-Maker has a dial that rotates 360°...tilts up to 45°. At any point it locks in place. Only Space-Maker has a handset that locks in seven different positions. And Space-Maker saves space. It mounts on any vertical surface. Examples: bedroom wall, kitchen cabinet, side of workbench—any vertical surface.

It adds up to this: your subscriber can have an extension in the *most convenient* location...with both the dial and handset in the *most convenient* position.

Your extension sales multiply with the compact Space-Maker phone. That's because you offer subscribers more locations for extensions. More locations mean more revenue.

Order the phone that fits anywhere in the home...the new Space-Maker extension phone. It's available in 10 colors.

AUTOMATIC ELECTRIC
GENERAL SYSTEM
Subsidiary of
GENERAL TELEPHONE & ELECTRONICS

*Space-Maker is a trademark of Automatic Electric Company

Free Promotion Kit! Includes commercials, posters, newspaper ad mat, stuffer, etc. For your free kit, write: Automatic Electric Sales Corporation, Northlake, Ill.

ice that produce good profits. "The best service in the world will not survive if profits are too low to cover the cost of operation. More important, mediocre telephone service will never get better if profits are low."

The discussion on mark-sense toll tickets was handled by a panel, which explained what is involved in changing to mark-sensing from equipment, accounting and traffic standpoints. Through the use of slides, equipment alterations necessary to handle mark-sense tickets and the proper methods of marking and reading the tickets were explained.

Those taking part in the mark-sense panel discussion were J. H. Collyns of San Angelo, N. T. Dunlap of Dallas; Mert Steiner of Dallas, Winnie B. Burnett of Brownwood, Jack Rutland of Brownwood, Gerard Bettes of San Angelo and Oscar Weisz of San Angelo.

Early and recent experiences in buried plant construction, dealing with relative economies of buried facilities vs. aerial plant, and some of the design problems in laying out buried projects—both rural and urban—were discussed by E. B. Wheeler of the Southwestern Bell Telephone Co. in Dallas.

Mr. Wheeler listed the advantages of placing plant underground as:

(1) Appearance.
(2) Freedom from storms, sleet and wind.
(3) Freedom from corrosive elements.
(4) Reduction of mechanical trouble.
(5) Reduction of electrical trouble.

In the early years, however, all factors were not in favor of buried plant because of the character of the materials available to bury and, to a certain degree, the physical conditions encountered and the installation methods involved, he observed.

However, Mr. Wheeler pointed out that with highly improved insulated cable and wires, reduction in electrolytic action, improvements in splicing techniques, terminals, protective equipment and plows and trenchers, buried plant has, in many cases, become feasible.

He described in detail the experience of his company in burying urban and rural plant and in conclusion made the following points:

(1) Much experience has been gained and there is still much to be learned. We are just beginning.
(2) While buried plant has successfully and economically replaced aerial plant in many instances, there is still a need for studying each case on its own merits before a decision is made.
(3) The employment of buried plant on such a wide spread basis, and its development to a point where it competes favorably with aerial plant, demonstrates that what was considered impractical yesterday is successful today; because of the fact that resourceful people continually accept the challenge of "finding a better way" to meet the demands of our business.

Following Mr. Wheeler's address, Wallace H. Johnson of the Whitney Blake Co. introduced John Brazee, Whitney Blake field engineer, who demonstrated the cable tester, recently developed by their company.

The convention was told that 74.5 per cent of the Independent exchanges in Texas are on a dial basis, by Executive Secretary J. B. Haley. This represents a gain of 4.5 per cent during the past year.

Mr. Haley also reported that Texas Independent companies are now operating in excess of 500,000 stations and the Bell companies serving Texas have approximately 2.6 million stations. Mr. Haley compared these figures with those of 10 years ago, when the Independents had 289,000 stations and the Bell companies served 1,422,000 stations.

Foster B. McHenry of Jefferson City, Mo., president of United States Independent Telephone Association, told the convention the rate of growth of Independent telephone companies is now exceeding that of Bell companies.

"Today Independent telephone companies serve nearly 11 million telephones in 10,766 cities and towns, have a total plant investment of more than 3.5 billion dollars, employ 100,000 people, and have 250,000 stockholders," Mr. McHenry said.

"This represents significant growth, but I believe the brightest era and largest opportunities lie ahead. There seems to be no let-up in the demand for telephone service. Operating in many suburban areas adjacent to large centers of population, Independent companies have been, and will continue to be, beneficiaries of shifts in population away from the big cities. This is a trend that seems certain to continue," he stated.

Some of the problems facing Independent companies, Mr. McHenry said, include the need for recruiting more young people; the need for more technical trainees; higher trainee standards for executive, management and supervisory personnel; and more investors to provide expansion funds.

"We must also have higher rates and earnings than presently allowed by regulatory commissions," Mr. McHenry concluded. "It might even be possible that the public will insist that public service commissions be more realistic in our rate regulations so we will be able to furnish high-grade competitive communication service."

During the convention's traffic conference, two important subjects were discussed by Lera Johnson of the General Telephone Co. of the Southwest at Sherman, Tex., who discussed the importance of visiting and rendering assistance to PBX customers, and Winnie B. Burnett of the Southwestern States Telephone Co., Brownwood, Tex., who spoke on the subject, "Utilizing Central Office Time Effectively."

Mrs. Burnett's address appeared in full in the Mar. 19 issue of TELEPHONY.

Mrs. Johnson emphasized the need

(Continued on page 51)

Taking part in a discussion of Mark-Sense toll tickets at the Texas convention are, left to right, N. T. Dunlap of Dallas, Southwestern Bell Telephone Co.; Mert Steiner of Dallas, Southwestern Bell Telephone Co.; Winnie B. Burnett of Brownwood, Southwestern States Telephone Co.; Jack Rutland of Brownwood, Southwestern States Telephone Co.; Gerald Bettes of San Angelo, General Telephone Co. of the Southwest; Oscar Weisz of San Angelo, General Telephone Co. of the Southwest. (Note the slogan at the top of the backdrop. This slogan has been adopted by the USITA Marketing Committee to emphasize to Independent companies that "Effective Marketing Means More Sales, Improved Service and Greater Profits."

Courts and Commissions

General of Kentucky Requests Rate Raise

General Telephone Co. of Kentucky on Mar. 23 filed notice with the Kentucky Public Service Commission for permission to increase local service rates. The increase requested amounts to $1,989,942 annually, of which $1,059,750 will go for income taxes.

Company president H. J. Huether Jr. stated that the company's need for an increase is based on higher costs, due to inflation, affecting such items as materials for construction and maintenance of telephone plant, employe wages, taxes and other commodities and services.

He further stated that to meet the continued demand for expanded and improved service, the company increased its investment in telephone plant during the period 1958-59 by more than 16.5 million dollars and plans to spend approximately 13.7 million dollars during 1960-61 for additional expansion and improvements.

He pointed out that during 1958 and 1959, the investment per telephone increased from $281 to $348, and by the end of 1961, it is anticipated that the investment per telephone will be approximately $386.

Mr. Huether emphasized that the company's total needs for additional revenues are included in this petition. However, the total amount sought will be reduced by the amount of revenue obtained from Southern Bell Telephone & Telegraph Co. in settlement of that part of the General company's operation involved in long distance or toll business interchanged with the Bell company.

The General company has made a study which it said indicates that it is entitled to more revenue from its interchanged toll business. However, the two companies have been unable to reach a satisfactory agreement on this particular item; therefore, simultaneously a formal complaint has been filed with the commission for a determination of the rights of the General company.

Mr. Huether said that although the company's last increase in rates was effective Dec. 15, 1958, this increase amounted to only 54 per cent of the amount originally requested. Subsequent events have proved that this increase was not sufficient to provide the company with satisfactory earnings, he stated.

He further said that in the telephone business, new funds for expansion of facilities come primarly from investors and not from money paid to the company by subscribers for telephone service. The money paid by subscribers is used to meet the costs of operating and maintaining telephone facilities and to pay for the use of the money invested in the company. Earnings must be adequate to attract further investment.

General Telephone Co. of Kentucky operates 127,509 telephones in 309 communities.

Deny Petition for Multi-listings In Chicago, Ill. Directory

The Illinois Commerce Commission on Mar. 17 denied the petition of Sigmund Schy to list his telephone answering service in the Chicago telephone directory in 10 different ways at the head of all alphabetical listings (TELEPHONY, Feb. 13).

Mr. Schy had asked Illinois Bell Telephone Co. for these listings:

A, AA, AAA, AAAA, AAAAA, AAAAAA, AAAAAAA, AAAAAAAA, AAAAAAAAA, and AAAAAAAAAA, all with the number DE 2-7900.

SW Bell Allowed Rate Raise At Texas Exchange

The Southwestern Bell Telephone Co. was granted rate increases, effective Mar. 13, by the Marfa (Tex.) City Council.

Rates at the Marfa exchange will increase as follows:

	Old	*New*
Residence	$5.00	$5.25
Business	9.00	9.50

Hear Sale Request in Ill.

The Illinois Commerce Commission on Mar. 28 was to have heard the joint applications of the Tonica Switchboard Co., Inc. to sell and of the Tonica Telephone Co. to buy, all telephone properties of the former.

City Asks to Buy Exchange; Objects to Sale in Ark.

The city of Marshall filed a motion with the Arkansas Public Service Commission on Mar. 11 objecting to the proposed sale of the Standard Telephone Co. to the Allied Telephone Co., Little Rock (TELEPHONY, Mar. 19).

Marshall City Attorney N. J. Henley said in the motion that the city council on Feb. 16 had voted to propose buying Standard's facilities in Marshall.

The Standard company has exchanges at Marshall and Leslie. It is owned by Mrs. Leone Thomas. On Feb. 17, she applied to the commission for permission to sell to the Allied company.

Utah Company Gets Increased Rates for Dial Service

The Utah & Wyoming Independent Telephone Co., Randolph, on Mar. 17 was granted a rate increase by the Utah Public Service Commission.

With the aid of a $106,000 Rural Electrification Administration loan, the company plans to install dial exchanges at Randolph and Woodruff and to provide service on a 24-hour-basis.

Cut-over date for the new facilities is tentatively set for Aug. 21.

New rates, it is estimated, will provide the company a 3.2 per cent return on investment.

Present rate for residence service is $2.00. This will increase to $6.00 for one-party, $5.25 for two-party, and $4.75 for four-party residence service.

Current rate for business service is $3.00. This will be raised to $9.00 for one-party and $8.50 for two-party business service.

Asks to Serve in Texas

The Western States Telephone Co. of Holbrook, Ariz., has applied to Texas Commissioners Court for a franchise to provide telephone service to the pro-

(Please turn to page 38)

THIS SPRING ALL AMERICA IS BEING ASKED TO

PICK A PHONE FROM

THIS GARDEN OF COLORS!

During April a Bell System advertisement will be in full flower—and full color—in 16 of the country's most widely read magazines (see box below).

Its aim: to sell extension telephones in color.

Commercials on the same theme will be aired on coast-to-coast television during the April 1st Bell Telephone Hour. These commercials, and the ad, will reach millions of people—customers of every telephone company.

And at a good time of the year, too. For spring is when folks get an urge to brighten up their homes and live a little easier. What better way to do both than by ordering convenient, colorful extension phones? They save time and steps while adding touches of beauty throughout the home.

And what better way can the telephone industry improve its sales and please its customers than by offering better telephone service at a reasonable price?

Some of your favorite magazines may be on this list of those that are carrying the Bell System April advertisement entitled, "Pick a phone from this garden of colors":

American Home • Better Homes & Gardens • Coronet • Everywoman's Family Circle • Good Housekeeping • Ladies' Home Journal • Life • Living for Young Homemakers • Look McCall's • National Geographic • Parents' • Reader's Digest Redbook • The Saturday Evening Post • Woman's Day

BELL TELEPHONE SYSTEM

posed community of Horizon City in west Texas. The Western States company serves two exchanges in west Texas, Fabens and Ft. Hancock.

New York Company Files New Rates to Meet Costs

Due to steadily mounting costs of operation and increased cost of facilities, the Highland Telephone Co., Monroe, reports it filed new rates with the New York Public Service Commission on Mar. 14. The first changes in the company's basic rate schedule since October, 1956, they are scheduled to become effective Apr. 21.

Company president Fred S. Florance pointed out that major categories of operating costs, such as wages and taxes, show increases ranging from 36 to 81 per cent since the current rates became effective. Costs of furnishing service are still continuing their upward spiral, he said.

At the same time, Mr. Florance added, increased borrowing has been necessary in recent years to permit expansion, improvement and modernization of the telephone system. As a result, between 1956 and the present, interest on long-term bond issues has risen by 312 per cent—from $25,000 to $105,125 annually.

Here are some of the key cost-of-service factors involved in the need for new rates:

	1956	*Now*	*Change*
Investment per telephone	$ 295	$ 420	Up 42 per cent
Operating taxes	113,353	205,637	Up 81 per cent
Wages	365,678	500,161	Up 36 per cent
Plant cost	2,857,686	4,891,565	Up 71 per cent
Interest on long-term borrowing (bonds)	25,000	105,125	Up 312 per cent
Average bond interest per $100	3.64	4.77	Up 31 per cent

Mr. Florance observed that although the proposed rate increases will add about $77,000 to gross annual revenues, Federal and state taxes will take more than half of that amount, leaving less than $36,000 for use by the company in meeting operating expenses, interest payments and other charges.

Ask to Eliminate Tolls, Set New Rates in Pa.

The Pennsylvania Public Utility Commission reported that on Mar. 9 the Conestoga Telephone & Telegraph Co., Birdsboro, asked permission to establish an exchange at Douglassville.

The company said that the new exchange would permit elimination of a 15-cent toll charge for Douglassville-Pottstown calls. The petition also told of plans to transfer 423 subscribers to the proposed Douglassville exchange from the Birdsboro exchange.

The company operates exchanges at Birdsboro, Boyertown, Morgantown, Sassamansville, Topton, and Yellow House.

Conestoga T&T proposes to increase local service rates of Douglassville subscribers to yield an estimated additional $3,072 annually.

The old and proposed schedules of rates for Douglassville are as follows:

	Old	*New*
One-party residence	$4.00	$4.50
Two-party residence	3.25	3.75
Four-party residence	2.25	2.75
Multi-party residence	2.25	2.75

Business rates, the company said, would be raised proportionately.

Refuse Louisiana Rehearing Of SBT&T Raise OK

The Louisiana Supreme Court on Mar. 21 denied a request by the Louisiana Public Service Commission to rehear the court's recent decision ordering the commission to grant rate increases to Southern Bell Telephone & Telegraph Co. (TELEPHONY, Feb. 13).

The company had sought raises amounting to 14 million dollars, and the commission had allowed approximately 2 million dollars, while denying SBT&T's main application.

A lower court affirmed the commission action.

The Louisiana high court did not state the specific amount of increase the company should receive, but did reverse the lower court. The supreme court also said present rates of the company were not just and reasonable.

Tests Unit That Doubles Ocean Cable Capacity

The world's most efficient telephone mechanism, which takes advantage of even the slightest pause in a telephone conversation, is now undergoing preliminary tests on a transatlantic cable system.

The Long Lines Department of American Telephone & Telegraph Co. is conducting the tests over the telephone cable system that links the United States with Great Britain. The new device, called TASI, for Time Assignment Speech Interpolation, is completely transistorized and will approximately double the original capacity of the cable system. TASI is due to go into service this summer.

The cable system, similar to those that now connect the mainland of the United States with continental Europe, Hawaii and Alaska, is presently equipped to carry 48 simultaneous conversations.

Long Lines said this is the way TASI works:

An overseas call, like most long distance telephone conversations, travels over a pair of channels—one for each direction of speech. As one party speaks, the second party listens. Thus, one channel is being used while the other is idle. And when a speaker pauses to catch his breath or collect his thoughts, both channels become idle.

Whenever the number of calls exceed the number of voice paths available, TASI takes advantage of the idle speech time by flicking voices from channel to channel. In other words, a talker's voice may travel over several different channels during the course of a conversation. Just before these "talk spurts" reach the listener, they are sorted out and re-united by TASI to assure smooth transmission and, at the same time, maintain complete privacy. To find idle moments in channels, TASI examines each one 8,000 times a second.

Studies have shown that the two channels used for an average telephone conversation are idle more than half of the time.

Long Lines said the electronic system, designed by Bell Laboratories, cost about 3.5 million dollars to install. The terminal equipment consists of 17 compact cabinets. One set of cabinets is at White Plains, N. Y., and another in London. Each contains 10,000 transistors and 106,000 other components.

Authorize Rate Raise For Company in Idaho

The Idaho Public Utilities Commission on Mar. 17 granted a rate increase to the Potlatch Telephone Co., Kendrick, which is expected to provide an additional $4,419 annually in revenue, effective May 1.

The company, which serves the villages of Kendrick and Juliaetta, has 376 subscribers and 157 farmer-owned lines in its system.

It was reported the commission said the Potlatch company must change from manual to automatic dial service by June 1, 1962, or make other arrangements for manual switching on the farmer lines.

Incorporate in Kansas

The Roxbury (Kan.) Telephone Co., Inc. has been granted a charter of incorporation. Esther A. Bowen was named resident agent.

Sell E. Ill. Company; Report Management Changes

The stock of the Eastern Illinois Telephone Co., Rantoul, has been purchased by W. Carl Allen and Marvin A. Johnston.

Under the new management, Mr. Allen has been elected chairman of the board of directors and Mr. Johnston president.

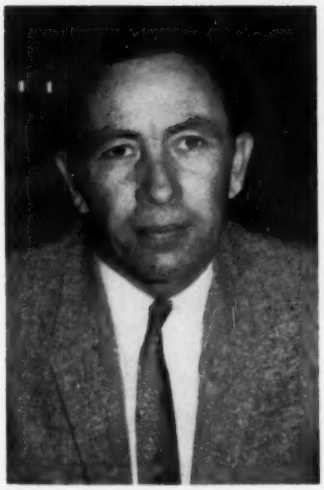
W. C. ALLEN

Other officers are: vice president, Tennie G. Johnston; secretary, Vivian Allen, and assistant secretary, Donald J. Korkowski.

The Eastern Illinois company was established in 1928 by W. C. Drysdale, who had been active in the company as president until recently.

M. A. JOHNSTON

During the past several years, a 3.4-million-dollar expansion and modernization program has been undertaken and is almost completed. This modernization program involved dial conversion, new buildings, and the expansion of service. An expenditure of $300,000 is planned for 1960.



R. M. QUINLAN

Mr. Allen, the new board chairman, has been the company's attorney for 19 years and has represented it in government, labor and rate case negotiations.

A bachelor of science graduate of the University of Illinois, he spent three years after his graduation working for the Universal Credit Co. and taught business practices at Brown's Business College in Centralia, Ill.

He returned to the University of Illinois as a law school student in 1938 and received his LL.B. degree in 1941.

During World War II, he served in France as an enlisted man in the infantry, being promoted to first sergeant.

Since 1952, he has had a law partnership with Donald J. Korkowski and maintains an office in Rantoul, Ill.

He is a member of the Illinois State Bar Association and the American Bar Association.

The new president, Marvin A. Johnston, joined the Eastern Illinois company three years ago and has managed it since that time. He will continue to be company manager.

Mr. Johnston has had 15 years of telephone industry experience.

Formerly, he was general manager of the South Plains Telephone Cooperative, Inc. of Lubbock, Tex. and of the Pecos Northwestern Telephone Co., Pecos, Tex.

Prior to joining the Eastern Illinois company, he was with the General Telephone Co. of the Southwest at San Angelo, Tex.

He attended San Angelo College and Texas Tech.

Mr. Johnston enlisted in the navy prior to World War II, serving for 5½ years, and was on the U.S.S. Enterprise off Pearl Harbor on Dec. 7, 1941. His navy rank was chief electrician.

Richard M. Quinlan, assistant manager of the Eastern Illinois company, was formerly plant superintendent.

He has been with the company since 1945, becoming plant superintendent in July, 1958. Prior to this, he had spent five years as construction foreman. He is a native of the Rantoul area.

FRED GROTHE

Serving for four years in the 157th Field Artillery and First Corps Artillery, Mr. Quinlan was stationed for 32 months in the South Pacific and Philippine Islands.

Office manager Fred Grothe has been employed by the company for four years as chief accountant and more recently as office manager.

He supervised the installation of Series 50 I.B.M. equipment in the company's billing department.

Mr. Grothe is a native of Tolono, Ill. He attended the International College at Ft. Wayne, Ind. and the University of Illinois.

Recently he took I.B.M. courses at the Chicago Educational Center.

Asks to Sell in Alabama

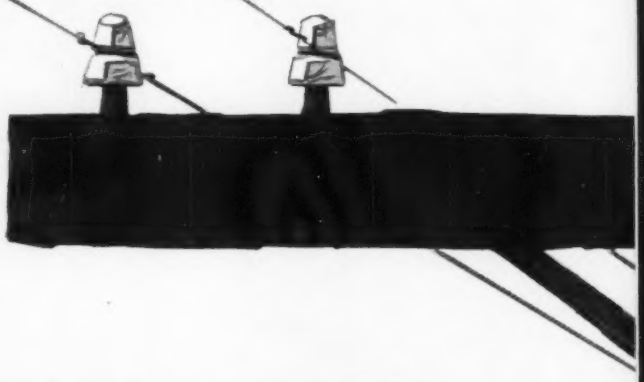
The Alabama Public Service Commission on Mar. 28 was to have heard the application of Midway Telephone Co. to sell to Ernest Hambric and R. B. Bowen. Present owner is E. E. Pope. Mr. Hambric and Mr. Bowen also asked to change the company's name to East Alabama Telephone Co., Inc.

Will Seek Illinois Sale OK

The Colchester Farmers Telephone Co. will ask the Illinois Commerce Commission for permission to sell to the McDonough Telephone Cooperative, Macomb. William E. Haines, Colchester company manager, said application will be made during April.

AE-Lenkurt

HAS **EVERYTHING** YOU NEED FOR PROFITABLE CIRCUIT EXPANSION



LENKURT SHORT-HAUL CARRIER, for instance . . .

Lenkurt's Type 45C family of open-wire carrier systems offers an inexpensive way of expanding circuit groups beyond the capacity of low-frequency carrier.

Types 45CA, CB, CC and CD provide four 4-channel allocations in the frequency range of 2 kc. to 156 kc., with all the advantages of Type 45 equipment for large circuit groups. In addition, the Type 45C terminals provide direct interconnection at carrier frequencies with all other 45-class systems for open-wire, cable or radio, and coordinate with W. E. Type O carrier.

Type 45C systems are transistorized, require a minimum of space, and employ interchangeable plug-in channel units. And each channel has its own compandor and regulator.

The AE-Lenkurt team of *telephone* engineers will handle as much of the planning and installation as you wish. And AE will provide "follow-thru" service *for the life of the equipment.*

For full information on the Lenkurt Type 45C systems or companion equipment, call your Automatic Electric representative, or fill in and mail coupon today.

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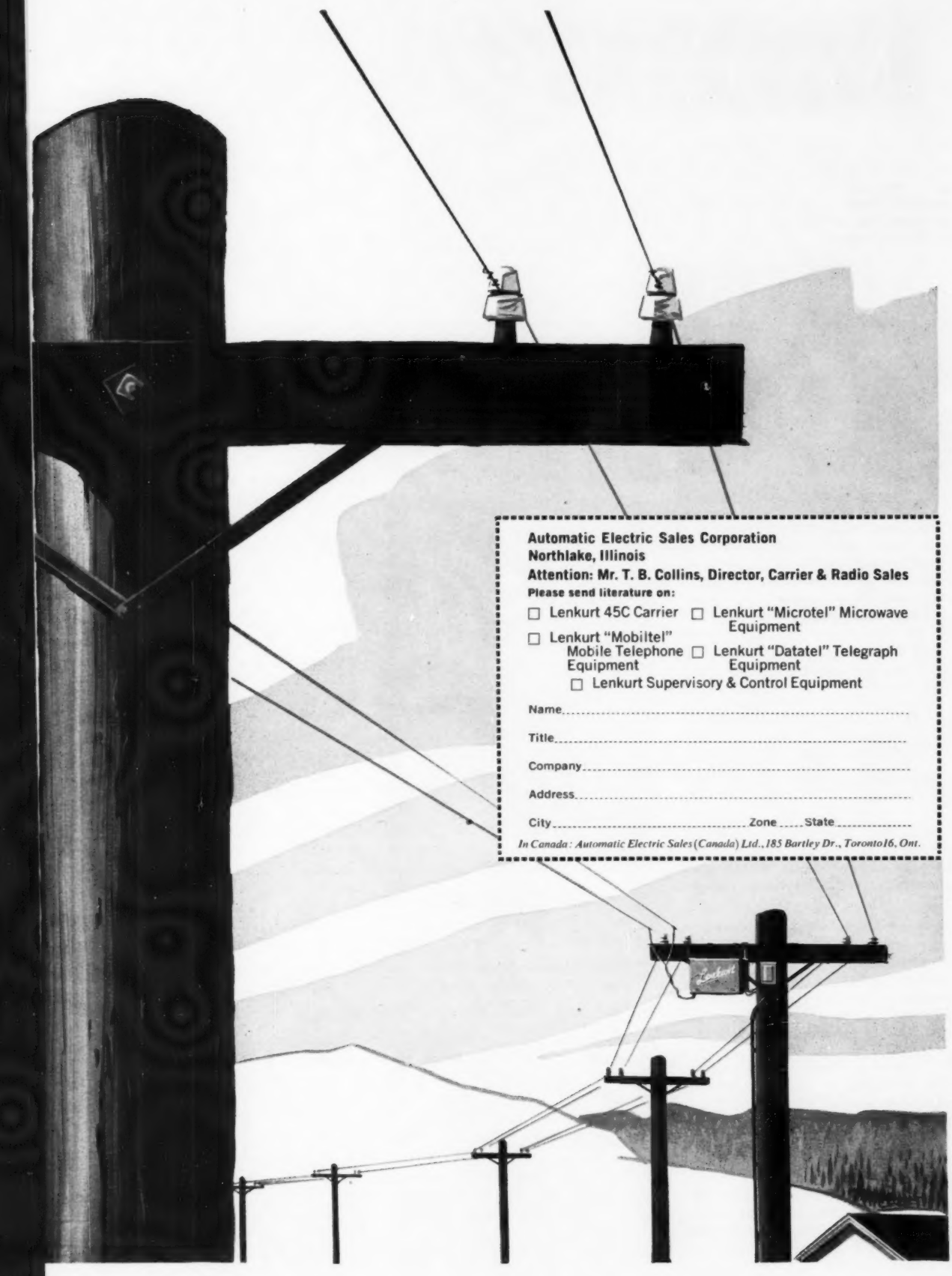
FROM ONE
DEPENDABLE SOURCE

AUTOMATIC ELECTRIC

Subsidiary of
GENERAL TELEPHONE & ELECTRONICS

GENERAL SYSTEM



Automatic Electric Sales Corporation
Northlake, Illinois
Attention: Mr. T. B. Collins, Director, Carrier & Radio Sales
Please send literature on:

- ☐ Lenkurt 45C Carrier
- ☐ Lenkurt "Microtel" Microwave Equipment
- ☐ Lenkurt "Mobiltel" Mobile Telephone Equipment
- ☐ Lenkurt "Datatel" Telegraph Equipment
- ☐ Lenkurt Supervisory & Control Equipment

Name.....

Title.....

Company.....

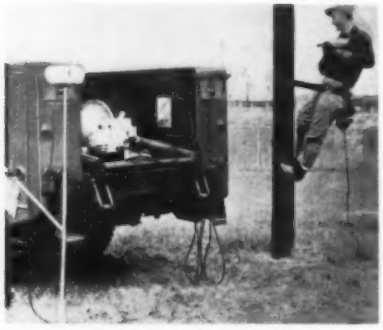
Address.....

City..... Zone ..... State.....

In Canada: Automatic Electric Sales (Canada) Ltd., 185 Bartley Dr., Toronto 16, Ont.

News on New Products

PORTABLE ELECTRICAL DISTRIBUTION SYSTEM — Porta-watt is the name that has been given to the new portable electrical distribution system introduced by the Tuffline Division of the Whitney Blake Co.



Porta-watt systems designed primarily for use with portable gasoline-operated generators, such as used on trucks of public utilities, telephone companies, municipalities and others, according to the manufacturer, make it possible to operate flashing warning lights, flood and trouble lights, electric tools, blowers, heaters and many other electric devices.

It is stated that these systems can also be used as emergency battery-charging power supply for dial equipment in "satellite" telephone exchanges.

Each Porta-watt system has the overload protection of circuit breakers in a breaker panel. Two types of panels are available: the two-pole with four interrupted circuits for flashing lights and four steady circuits; and a four-pole system with eight steady circuits.

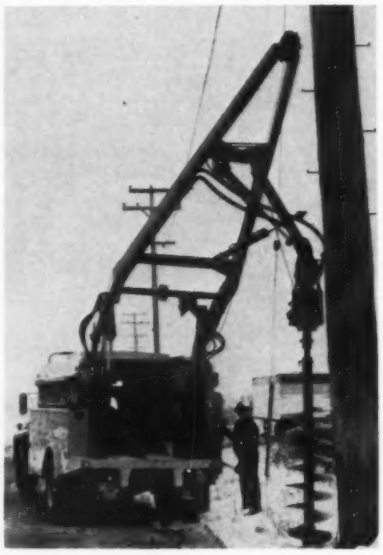
Whitney-Blake states that the Porta-watt systems are safety-engineered to protect the users. The patented Tuffline connectors are described as entirely waterproof; the connecting plugs are polarized so that they cannot be plugged anywhere except into the breaker panel, thus providing overload protection at all times. In addition, the circuit breakers are encased in neoprene, which according to the manufacturer, makes it impossible to receive a shock if the neoprene is undamaged and intact. Request NP1296.

•

TRANSVERSE POSITIONING CYLINDER FOR DERRICK — The Holan Corp. is making available a transverse positioning cylinder for use on the Holan 6800 Derrick, with all Holan hydraulic earth borers.

Holan states that the new positioning cylinder enables the operator to move the digger sideways. It becomes a working companion of the "fore and aft," or longitudinal, positioning cylinder which has been available for use on the 6800 Derrick for some time.

Also, the sideways travel of the digger makes it possible to bore at curbside with the truck parked at a shallow angle — thus eliminating blocking of street traffic.



From the centerline of the derrick, the transverse positioning cylinder will move the digger 11 inches to the left side and 29 inches to the right, or curbside. Thus, with a transverse positioning cylinder, holes can be bored close to a standing pole or any other obstruction, the company indicates.

Holan positioning cylinders are described as able to reduce truck maneuvering in spotting hole sites, maintain straight line feed, permit boring of anchor holes without repositioning the truck, and speed hole-starting in rough, uneven terrain, because the earth borer can be moved out of vertical to "toe in" holes.

Holan's positioning cylinders can be used on the 6800 Derrick, with Series 5400, 4450 and 4401-H earth borers. Request NP1297.

•

SILENT BUZZER TRANSMITTER AND RECEIVER—Murphy Engineering Laboratories, Inc., announces an improved version of its Silent Buzzer Transmitter (SBT-3) and its Silent Buzzer Receiver (SBR-3).

Both transmitter and receiver are now housed in all-steel weather-proof cases. Talking batteries are also included in the new case.

The company states the transmitter emits a 15-K.C., frequency-modulated signal—heard only by the splicer and his helper—as well as a low frequency 800-cycle tone for special applications.

Used for two-man testing to identify cable pairs, the units eliminate subscriber reports of interference, the company states.

The receiver uses seven transistors in a superheterodyne circuit. Switched to a low-tone position, the receiver be-

(Continued on page 45)

TELEPHONY PUBLISHING CORP.
608 S. Dearborn St.
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Please have the manufacturer send me without obligation the literature indicated by the following numbers:

NP1296_____; NP1297_____; NP1298_____; NP1299_____;
NP1300_____; NP1301_____; NP1302_____; NP1303_____;
NP1304_____; NP1305_____; NP1306_____; NP1307_____.

Name.....

Company.....

Street.....

Town and State.....

4/2/60

D.D.D. seminar held at Rochester, N. Y.

P. P. C. S.

Toll Ticketing Seminar Discusses When, Why and How

The subject *"Is D.D.D. + P.P.C.S. Practical for You?* packed the seminar room.

Was P.P.C.S. (Person-to-Person, Collect and Special — such as credit card charging) an essential part of Direct Distance Dialing? What were the problems? Would it be profitable? Everybody had questions, but few knew the answers, as the leader called for attention.

"It has been suggested," he began, "that instead of having talks about Direct Distance Dialing and then a question period, we begin with some questions. A few have already been handed to me for our panelists; here is the first."

Q. Is equipment available now for mechanized ticketing of "premium type" calls?

A. By this I assume the questioner means person-to-person, collect, and special instruction calls such as charging to a credit card or a third telephone. The term P.P.C.S. is generally accepted as more appropriate to describe these services.

No Independent manufacturer has delivered such equipment yet, and as of this date few operating companies have indicated that they require this addition immediately. However, several manufacturers are in a position to offer the equipment when it is specified.

The question which is most important today is this: will the new P.P.C.S. (premium) gear to be delivered be compatible with existing toll ticketing equipment now installed? In the case of Stromberg-Carlson's P.P.C.S. toll ticketing apparatus, it can be coupled to present Type 40 line-identifying equipment as *an addition*, not as a *replacement*. The investment of many operating companies now using this system will not be jeopardized when—or if—they decide to include P.P.C.S. calls in their toll ticketing facility. For some companies, then, the costs of this addition will be prepaid out of current earnings from Type 40 station-to-station revenue.

"This next question is what many of you were asking as I came into the room."

Q. How does P.P.C.S. work?

A. P.P.C.S. provides additional equipment to make these operator-assisted calls possible. A special access code, that is *different* from the access code for sent-paid station-to-station calls, allows the subscriber to advise the toll ticketing equipment that he intends to make a person-to-person, collect, or third number type of call, affecting the charges on the ticketed toll call. After dialing the P.P.C.S. access code, he proceeds to dial the 7- or 10-digit number of the desired party in the usual manner.

At the completion of dialing, an operator is connected to his circuit, announced by an order tone. He gives the operator his instructions (name of person, credit card number, or other information).

While this is going on, the toll ticketing equipment is advancing the call. When the called telephone is answered, the operator assists as required, then dials or punches out an appropriate accounting digit and retires from the connection. Identification, timing and eventual production of the ticket are entirely the function of the toll ticketing equipment for most of these calls.

If the call is of the time-and-charges type, the operator will stay with the connection to time the call, write a ticket, and advise the calling party of the charges. On such calls a machine-produced ticket may also be prepared if desired and matched later in the accounting process.

When charges are to be made to a credit card or third number, the operator prepares a ticket with this information before retiring; this handwritten ticket is matched later with the auto-

matically produced ticket in the accounting section.

"This mention of the operator leads right into our next question."

Q. Can a company operating as a C.D.O. only use P.P.C.S.?

A. Any approach to P.P.C.S. other than through a toll board operator would be fantastically unrealistic from a cost standpoint today. For all practical purposes, then, a C.D.O. would have to become an M.D.O.—at least to the extent of having a toll board position and an operator—if they wish to add P.P.C.S. to Direct Distance Dialing.

Now of course a C.D.O. *tributary* of an M.D.O. having P.P.C.S. as a part of its toll ticketing equipment may extend this type of service to the tributary subscribers by an appropriate modification of its access facilities.

"Apparently someone thought the letter 'C' in P.P.C.S. stood for 'Coin' box calls. His question is . . ."

Q. Does P.P.C.S. allow us to put paystation calls on D.D.D.?

A. There is no equipment presently available that makes this economically feasible. When a call is placed from a paystation, there must be some means of supervision during its complete duration. Therefore an operator monitors the connection to see that proper collections, depending on rate and duration of the call, are made. When she retires from the connection, the *whole transaction is complete*, the calling party has been satisfied, and the telephone company has been paid in full. It's all over and done with.

A paystation call, therefore, is an entirely different class of business from a ticketable long distance call from the ordinary subscriber station. This may be illustrated by saying that a paystation call, in almost every case, is like shopping in a cash-and-carry supermarket . . . you have the groceries, the clerk has your money. Neither one of you needs to know who the other is, or to mix this clean, efficient operation with a complex, charge account type of procedure that is essentially records and billing. To combine unlike functions is unnecessary and wasteful.

Now consider the very different circumstances of the D.D.D. call from the subscriber's station. This low-cost instrument has no provision for collecting money at the time a call is made. Therefore every toll call becomes a matter of records for later billing. Machines perform three principal functions: establishing the connection, computing the charges, and directing the charge to the right party. These are the areas where mechanized processes can make their greatest contribution to operating revenue.

Back to your original question, then: Can paystation calls be handled through P.P.C.S.? It is possible to take a step in this direction, but can you see any real benefits?

This same question on paystations was one of the topics discussed in a joint meeting of the U.S.I.T.A. Subcommittee on D.D.D. and the Bell System Technical Committee as recently as last fall. Their conclusion was that, at the present time, it does *not* appear economically reasonable.*

"This next question, on the cost of P.P.C.S., was bound to come up sometime."

Q. What are the extra costs in providing P.P.C.S. service?

A. Let's answer this first by listing what has to be done to add this new service. If you already have toll ticketing equipment, there is the question of compatibility. Will it have to be *replaced*, or—as in the case of Stromberg-Carlson Type 40 systems—only slightly modified?

Assume it's the latter case.

To provide P.P.C.S. in your toll ticketing facility, you add a P.P.C.S. adapter (in size equivalent to a trunk plate) for each recording circuit, and a similar number of jack-and-lamp appearances on the toll board. This completes the addition to the recording equipment—and no change whatsoever is necessary in these circuits: identification adapters, recording adapters, and register-senders. (It might be well to point out that any system must include register-senders if it is to provide P.P.C.S.).

Now, still referring to the Type 40 equipment mentioned previously, let's look at the readout equipment. It is *already equipped* to receive, store, and punch (or print) the new accounting code digit which the operator dials to identify the type of P.P.C.S. call just before she retires from the connection.

If the system does *not* have built-in charge computing, many offices will require no changes at all to reproduce this extra digit at the output device. If the addition of P.P.C.S. makes a revision of the ticket format advisable, then a small modification may be necessary.

If the system *does* have a computer and rate interpreter, an addition will be made to the rate interpreter to accommodate the higher person-to-person rates for calls of this class.

You asked what a P.P.C.S. addition would cost? While no one can give dollar figures without studying a particular situation, you can see from what I have said that you might be pleasantly surprised. It depends to a large degree on the basic equipment installed.

Of equal importance, however, is the effect this P.P.C.S. addition will have on the operating efficiency of the toll board. The net result of P.P.C.S. is to make *more* of these special service calls possible with the same number of positions and operators, or to make it possible to handle about the *same* number of special service calls with fewer operators. Again no general rule can be made to cover this; each office must be studied as an individual case to determine the effect of mechanized procedures on operating revenues.

"This next question is really an extension of the same idea, although the approach is from a different angle."

Q. Is there any reason to think I will have to offer P.P.C.S. in order to have toll ticketing in my exchange?

A. As far as anyone knows now, there is every indication that the Independent segment of the industry can continue to enjoy the easily proved benefits of station-to-station toll ticketing without assuming the more questionable P.P.C.S. function until it can be justified within their own operation. It remains, then, a matter of choice, dictated by economic considerations. If the station-to-station equipment has been selected for compatibility, this option may be carried out at a later date.

* * *

"I can see that all of you have questions of your own," said the leader. "But this much seems to be apparent so far: this P.P.C.S. (or "premium" as some of you call it) is just a small part of the whole D.D.D. picture. Let's take a short break and then continue our meeting."

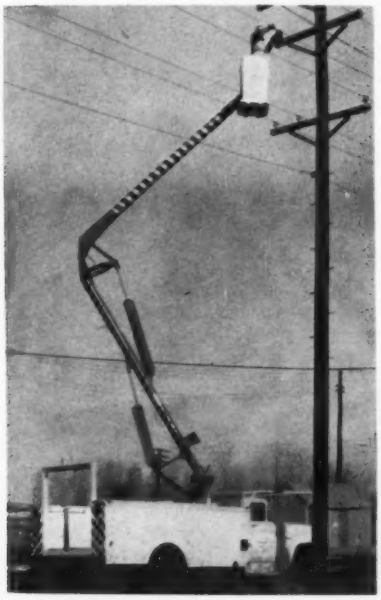
**Notes on Distance Dialing*—1956 (Addendum) A.T.&T. Co.

comes a straight audio amplifier with a number of uses. Request NP1298.

•

INSULATED AERIAL BEAM—An aerial beam, insulated from ground to withstand in excess of 50,000 volts, has been added to the Sky-Master line of aerial equipment, manufactured by the McCabe-Powers Body Co.

In announcing the new unit, designated the Series ABS Sky-Master, Brooke Daly, vice president of the St. Louis firm, stated, "The Series ABS is a highly-perfected aerial device, engineered, constructed and tested to provide safety, operating simplicity and freedom of movement conducive to the completion of overhead jobs quickly,



with complete safety (that is, on or near energized lines) and with a minimum fatigue for the workman."

Movement of the independently-controlled beams and rotating support mast is hydraulically powered, through the truck engine or an independent power source. The outer beam can be positioned at any point in a 270-degree arc; the inner beam can be moved to any point in a 110-degree arc; and the mast can be turned continuously in either direction. The work basket can be spotted in an indefinite number of positions in all directions from the truck. Request NP1299.

•

TELE-PROCESSING—Two IBM Teleprocessing data machines — electronic devices that talk to one another in computer language via regular toll telephone circuits have been announced

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by International Business Machines Corp.

The IBM 7701 Magnetic Tape Transmission Terminal sends business and scientific data at the rate of 150 characters or 30 words a second—15 times as fast as human speech.

The IBM Data Transceiver equipped with a dial-up telephone feature can transmit 10 eighty-column punched cards a minute.

In each case a twin device at the other end of the telephone circuit, which may be across the country, automatically recreates the original magnetic tape or punched card data. Both of these terminals are also capable of operating over telegraph lines.

The new IBM 7701 Magnetic Tape Transmission Terminal (center unit above). Operator of a 7701 at one location dials twin 7701 at distant computor location, and may obtain machine telephone payroll, billing, engineering or any similar data for processing.

"These exciting developments in low cost IBM Tele-processing mean that no business installation of the Sixties need be more than a long distance telephone call away from high speed electronic computation," said Gilbert E. Jones, president of IBM's Data Processing Division. "They provide the efficiency of centralized data processing to decentralized organizations whose volume does not justify leased telephone and telegraph lines."

Typical of the organizations with many field offices for which the IBM 7701 is designed are government agencies and companies in the insurance, petroleum, chemical, steel, automotive, transportation, rubber and general manufacturing industries. These organizations have had a growing need for economically linking their decentralized data processing centers in such sizeable operations as billing and payroll.

In use, the operator in the sending location places a data-filled tape reel on the 7701 and then dials the telephone number of the receiving location. Learning that data are to be sent, the receiving location operator verifies that the receiving terminal is prepared to record the transmitted data. As the operation begins, data pass at the speed of 150 characters a second from the 7701, through a modulating subset provided by the telephone or telegraph company, through the communication circuits, to a demodulating subset at the other end, and into the receiving 7701. Message rates are the same as for voice conversations, IBM points out.

The IBM Data Transceiver with new Digital Subset Feature. Here Transceiver operator at one data processing office has just dialed identically equipped Transceiver at distant office. By enabling the user to telephone or telegraph data on a time-charge basis, the Digital Subset Feature provides increased operating economy and flexibility.

The procedure for transmitting stand-

This never happens when you use

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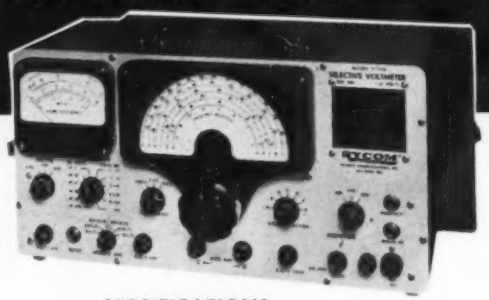


- Offers fast accurate amplitude measurements throughout the frequency spectrum of 300 cycles to 400 kc

SPECIFICATIONS
Model 2174-A

Frequency Range: 300 cycles to 400 Kc. Level:—72 dbm to + 32 dbm (full scale) at 600 OHMS Accuracy: ± .5db from —80 to +32 dbm; 1 to 400 Kc. Selectivity: 6db down 80 cycles off: 60 db down 480 cycles off. Wider crystal filter and demodulator for monitoring SSB, AM, and FM—internal speaker and headset jack. Spurious Response: Below 60db, low intermodulation: Below 60 db. Power Requirements: 115V, 50/60 cycles—48 Watts. Weight, 28 lbs.

ard punched card information via dial-up Data Transceiver equipment is similar.

The transistorized 7701 will transmit the magnetic tapes used on all IBM data processing systems. According to the company, it will automatically correct tape reading and writing errors as well as errors in transmission.

IBM Tele-processing was adopted as a trademark by the company to designate electronic devices which link widely separated data processing locations. Request NP1300.

•

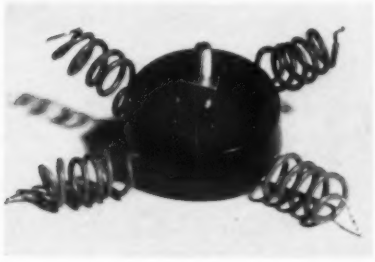
TELEPHONE ISOLATION DEVICE —The TID-4, a passive, semiconductor device designed to isolate stubs or drops on telephone cable or open-wire lines, is announced by Orbit Industries, Inc. Its function is to isolate the high mutual capacitance of direct buried plastic wire or cable from the line on which it joins as a tap.

This device is described as particularly adapted to use at the junction of taps on loaded cable.

Orbit states that the impedance of the TID-4 semiconductor device varies from an extremely high value in the "on-hook" condition to less than one ohm in the "off-hook" condition. Thus, in the on-hook or idle circuit condition, shunt capacitance beyond the TID-4 unit does not affect transmission on the cable pair to which the tap is connected.

In the "off-hook" condition where talking battery or signalling current flows, the impedance of the TID-4 junction drops to a negligible value.

Thus the TID-4 is enabled to pass normal ringing currents on either a bridged or divided ringing basis, the company says.



Also, the TID-4 is not polarity-conscious and may be used on 48 or 24-volt systems and in applications where reverse battery signalling is required.

The physical size and mounting provisions of the TID-4 are comparable to those of the usual single-unit loading coil. The unit is generally mounted in a cable pedestal or may be housed in a pole bracket enclosure.

According to the company, there are

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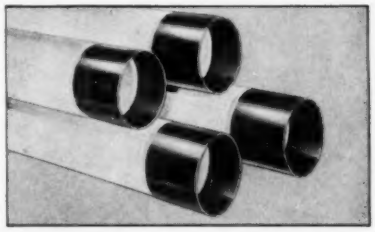
With Transite you have fewer items to stock, less warehousing, lower inventory costs. There's less handling of material all around. As for breakage, there's practically none. Savings are substantial.



Write today for brochure TR-239A, "Transite Telephone Ducts." It gives complete information on why Transite's installed cost is lower . . . as well as why it reduces future costs in cleaning, rodding and repair. Address Johns-Manville, Box 14, New York 16, N. Y. In Canada, Port Credit, Ont.

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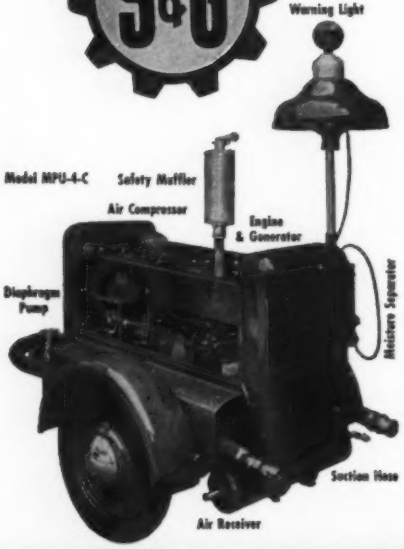

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- operates soldering pot and iron, electric and air tools
- electric blower to ventilate manhole
- supplies dry air for cable cut-overs, flash testing, etc.
- diaphragm pump can be operated from manhole by push button control
- buzzer signal for summoning helper
- light, easy to handle

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no protection requirements, other than those normally applied to line and cable; and application of the TID-4 unit does not affect existing protection. Request NP1301.

•

STEEL BUILDINGS—Steel buildings, such as used by telephone companies at remote carrier locations and for other similar shelter, are available from Ansel Mfg. Co. The company states that their steel buildings are made up of five panels constructed of 22-gauge cold rolled steel, heavily re-inforced.

Ansel also says that the buildings, when erected, are 60 inches square, 76 inches high, and slope to 72 inches, giving a well-proportioned appearance from all directions. The door and back section may be removed in a few minutes to allow for ventilation.

The complete building, the manufacturer states, is erected easily by bolting the sections together.

Ansel describes the process whereby one telephone company is installing the steel buildings at all of its six remote carrier locations. The carriers are removed from the pole and mounted on a stub pole H fixture. A slab 4 inches thick by 6 feet square is poured for a floor to keep rodents out and control dust. All protectors are mounted on the H fixture inside the building for easy testing. A light fixture is installed and also a convenient outlet for soldering iron, test equipment, and for a portable electric heater.

Along one side, a 12-inch test shelf is installed.

Time and mileage are saved to and from the central office in bad weather, Ansel points out, since carriers can be repaired on the spot. Preliminary testing time is shortened, and waiting for snow and rain to cease to expose the carrier is eliminated.

Another advantage is that dust pre-

vention will eliminate many outages encountered.

Further, tube and component life are said to be lengthened by installing the voltage regulators several feet from the carrier, thus reducing summer heat.

The standard color of Ansel Steel buildings is white, but other colors are also available. Request NP1302.

•

LARGE MODEL TRENCHER — The Brown Mfg. Co., Inc., announces it is marketing a new and larger model of its Bus Brown Trencher. The company states that the new Bus Brown Trencher (Model 468R) weighs 350 pounds more and offers more trenching width than its predecessor (Model 346).

The new trencher is said to be capable of variable trenching speeds up to 12 feet per minute and will trench ditches up to 12 feet wide.

A new feature of this model trencher is the balancing on the two front wheels, designed for easy stearing, while moving forward and loading.

The 468R trencher is described as improved to make it more versatile for rugged digging jobs, such as for installing underground telephone cables, for underground electrical wiring, and laying out limits for excavations. Specifications include:

Twelve HP Wisconsin engine.
Shipping weight, 1,100 pounds.
Frame, rigidly welded ¼-inch steel plate.
Tires, 4 x 8 pneumatic (traction type).
Digging chain, specially made for trencher, with easily detachable cutters.
Bearings, roller bearings with zerk fittings — ball bearings permanently sealed.
Trenching width, 4 to 12 inches.
Self-propelled, drives on all four wheels while digging, and drives on rear wheels while in transport gear.
Hydraulically controlled digging boom.

Request NP 1303.

•

PROTECTIVE COVERS — New Protechtor covers for break-outs, branch-outs and splices, are being introduced by The Zippertubing Co., manufacturers of cable jackets for the electronic and other industries.

These Protechtors are available in a

ALPHADUCT UNDERGROUND "B" SERVICE WIRE

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...and no other underground service wire can compare with Alphaduct for sheer ruggedness and trouble free service under unfavorable operating conditions. Alphaduct is engineered to withstand moisture, heat, abrasion, deformation and you get these PLUS FEATURES:

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Cleveland, Ohio

Pankey Supply Co.
Charlottesville, Va.

full range of sizes and a variety of colors. The colors of present cable jackets can be matched.

The covers may be ordered with two or more legs; and conventional "T," "Y," and fork designs are available for distribution cable branch-outs.

Zippertubing engineers are available, without extra cost, the company states, for consultation on design and application for more intricate configurations.

The use of the Protechtors is said to eliminate the need for costly molding by providing a covering quickly and economically in the plant. Zippertubing reports show savings up to 90 per cent in man-hours because installation times involves only minutes.

Protechtors reflect the current trend toward the use of plastic outer jackets for cables, the company points out. Request NP1304.

•

METAL LOCATOR—An improved transistorized pipe valve and cable locator, said to locate any metallic object that is not very deep, has been put on the market by the Gardiner Electronics Co.

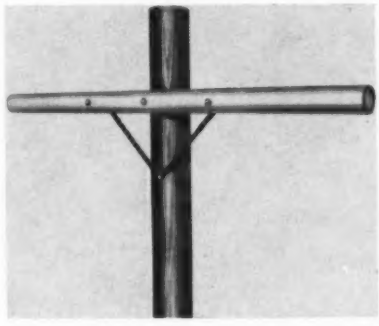
The locator features a single-turn transmitting and receiving coil cast directly into the Fiberglas case. The company states that the transmitter and receiver are powered by four flashlight batteries each and give an average life of 1,400 hours.

The Gardiner locator uses a total of 11 transistors, four in the transmitter and seven in the receiver. The transmitter also has a switch to allow for good and poor conductive ground; and the receiver has a three-position sensitivity switch, plus a variable gain control. Both transmitter and receiver have a built-in battery tester.

Another feature is an adjustable height drop handle to allow for use by men of different height. Request NP-1305.

•

FIBERGLAS CROSSARMS—The development of Fiberglas cross arms for utility lines has been announced by Gar Wood Industries, Inc. The cross arms, developed by a special process, according to the company, provide exceptional electrical properties, are light-



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weight, and show high resistance to weathering and insect damage.

In addition to utility applications, Gar Wood Fiberglas cross arms are also in use in radar antenna installations.

The new cross arms are available in a range of sizes, with or without hardware. Request NP1306.

•

PORTABLE REFILL UNIT FOR JET LINE CYLINDER—A portable refill unit which makes possible on-the-job or in-shop recharging of Jet Line Cylinder bottles has been introduced by Jet Line Products, Inc.

A fairly recent development in itself, the Jet Line Cylinder provides a method of laying a nylon line through 1/2, 3/4 and 1-inch conduit speedily, the company says, thus saving considerable time in snaking. This tool employs high-pressure expansion of a harmless gas to propel a light line package through the conduit; one filling of the Jet Line Cylinder pressure bottle will deliver approximately 100 conduit shots.

The company points out that the new portable refill unit facilitates quick recharging of the Jet Line Cylinder. Request NP1307.

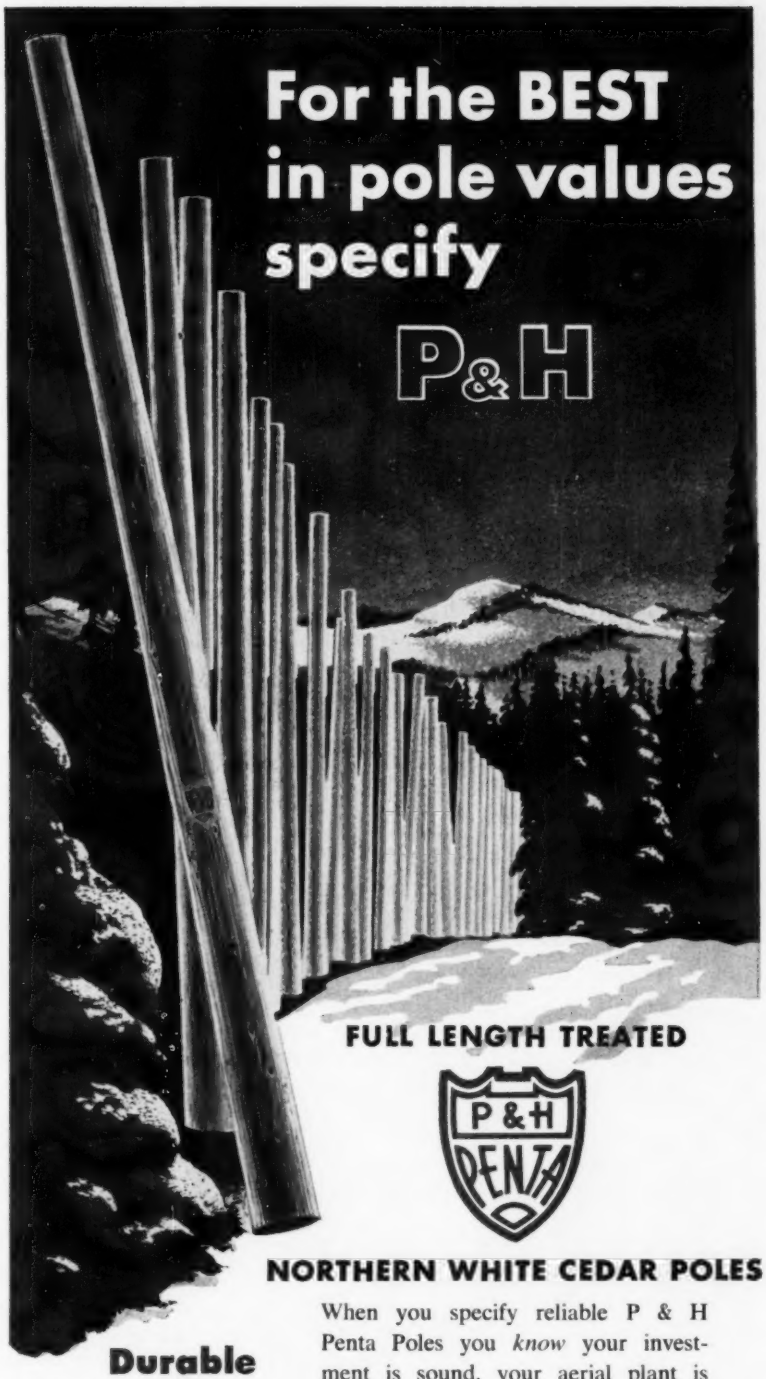
TEXAS CONVENTION

Continued from page 34

of paying close attention to PBX customers because there are as many PBX operators as telephone operators in the U. S., and because 25 per cent of all traffic originates or terminates in a PBX and 50 per cent of the nation's toll calls, at some point, involve a PBX. She stated:

"It can be seen that PBX users are 'big' customers and any way we can improve their service helps the telephone company. The PBX user's service is controlled to varying degrees by the PBX operator. The PBX operator uses telephone company equipment, exercises some control over trunk usage and toll circuits. The action of the PBX operator may determine the adequacy of the installation to meet the customer's needs.

"Assistance by the telephone company in the training of the PBX attend-



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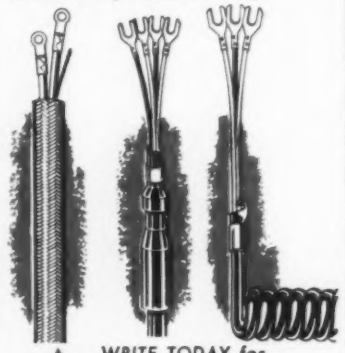

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ant certainly pays off. Such training, including the latest operating procedures, develops understanding between the PBX operator and the telephone operator; saves toll circuit and trunk time. Any improvement in customer service makes for better public relations—for the customer *and* the telephone company. The 'extra' pays off—for us."

Mrs. Johnson emphasized that visits to PBX installations should not be confined to larger cities. "During the last few years, we have seen a tremendous increase in industry locating in smaller towns, and it is necessary for smaller telephone companies to see that the requirements of these PBX subscribers are fully met."

Texas Pioneer Chapter Holds Meeting

One hundred and forty-four members of the Texas chapter of the Independent Telephone Pioneer Association, and guests, attended the chapter's annual meeting during the convention of the Texas Telephone Association. The chapter has 147 members.

Winnie B. Burnett of Brownwood, Tex., president of the Texas chapter, presided over the meeting.

The following new chapter officers were elected: President, Dee Cole; vice presidents, J. L. Kemper, Howard Hausley, Morris Bateman and F. A. Robinette; secretary-treasurer, Wallace H. Johnson.

Directors elected are: Mrs. Burnett; W. T. Reichel; Guy Smelser, Otis Hitchcock, and B. Simmons.

E. Vogelsang of Waco, Tex., REA accountant, spoke on "Accounting Problems for Small Companies," at the convention accounting section.

Mr. Vogelsang pointed out the advantages of maintaining systems of accounts prescribed by the Federal Communications Commission.

He urged small companies to institute adequate revenue and plant accounting records so as to reflect their true financial and operating conditions at all times.

At the commercial conference, Roy Priest of the General Telephone Co. of the Southwest at Brownfield, Tex., stressed the importance of adequate collection procedure in an address, "Don't Let It Go Down the Drain." He stated:

"We, as a business, just as the grocery or hardware store, have always tried to improve our collections, but we have been too lax at times. We have a disadvantage over the ordinary business for we don't really know how much credit we have allowed our customers. When we do find out it is often too late. Even after we have realized what has happened, and discontinued service, we may still receive toll calls that the customer owes, calls which were made prior to discontinuance of service and which are just now coming to our offices for billing. We can and must do something to prevent such losses.

"It is bad enough to spend money on storms, teardowns, wet cable, etc., but to lose additional money which is due us from the customer is adding insult to injury. What is the answer? Action on our part to protect ourselves, 'Self-protection — Self - preservation' — any name you might want to call it.

"When should we start working with the customer to prevent losses of money such as this? We should start with him the first day he applies for service. The answer in a nutshell is 'Set up a collection practice and *use it.*' If we decide that a collection practice is what we need, but will not enter into it whole heartedly, it will not succeed. If we are not going to use it—*don't set it up.*

"We must study the situation very carefully, however, before we decide that we don't need it. Personally, I think we all need it. The procedure should be set up for two reasons: To protect ourselves *and* the customer. We need to protect ourselves to remain in business. The customer needs to protect himself. He can get so far in debt that he cannot get out. A collection procedure will allow us to review our customers in a very short time, and allow a complete picture of the paying habits of all of them."

The convention re-elected the following directors: M. S. Burton of Tyler, J. T. Chambers of Tenaha, C. R. Dowd of Hawkins, C. A. Gilmore of Rocksprings, C. A. Hendricks of Brazoria, C. J. Mendenhall of Anahuac, and Guy Smelser of Bogata.

Newly-elected directors are: Pam D. Grinstead of Kerrville and J. T. Ricketts of Vega.

Other directors are: W. S. Bain of San Antonio, Fabian Bearden of Baird, M. A. Clay of Lufkin, Dee Cole of Greenville, E. H. Danner of San Angelo, D. G. Gardner Jr. of Nocona, R. A. Goodson of Dallas, J. B. McDuff of Crockett, H. Y. Price Jr. of San Marcos, A. L. Robb of Electra, D. T. Strickland of Brownwood, W. G. Winters of Houston, and Oscar Burton of Tyler.

Elected officers are: President, Mr. Clay; vice presidents, Mr. Bain and Mr. Price; treasurer, Mr. Grinstead, and executive secretary, J. B. Haley of Austin.

View of Government

"Achievement and progress cannot be created for our people; they can only be created by our people."—DWIGHT D. EISENHOWER, *President of the United States.*

Diamond Expansion Bolt Names Maish Marketing Head

The Diamond Expansion Bolt Co. of Garwood, N. J. has announced the appointment of William Maish as director of marketing. In making the announcement, Carleton H. Bunker, president, emphasized a program of increased cooperation with distributors and jobbers in the areas of service, advertising and promotion.

WILLIAM MAISH

The Diamond company specializes in the field of anchors, fasteners and pole line hardware.

Mr. Maish, a graduate of Harvard and a lieutenant commander in the Navy during World War II, was previously associated with the Blaisdell Pencil Co. as vice president, general manager and as a member of the board of directors.

Hewett Represents Electronic Secretary, Inc. in SE

Jerry F. Hewett has been appointed southeastern district field engineer for Electronic Secretary Industries, Inc., Waukesha, Wis., it has been announced by George W. Danner, president.

Mr. Hewett was formerly a maintenance technician for General Telephone Co. of Florida, where he had been employed for the past 14 years. He replaces E. Edwin Evans who has been promoted to the technical staff of Electronic Secretary Industries' engineering laboratories.

Mr. Hewett will be responsible for a territory made up of the states of Kentucky, Tennessee, North and South Carolina, Georgia, Alabama, Mississippi, Louisiana, and Florida.

J. F. HEWETT

A subsidiary of General Telephone & Electronics Corp., the company manufactures automatic telephone answering and message recording equipment, and automatic warning apparatus.

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Ansonia Assigns Southeast To Marsh & Associates

It has been announced by Jack Wilder, president of The Ansonia Wire & Cable Co., that John L. Marsh has resigned as vice president to form his own sales company. He will represent Ansonia in the Southeast.

J. L. MARSH

Mr. Marsh's new company will be known as John L. Marsh & Associates, with temporary offices in the Barnett National Bank, Jacksonville, Fla.

The territory assigned by Ansonia to John L. Marsh & Associates consists of the states of Florida, Alabama, and Georgia. The new organization will be responsible for the sale of all Ansonia Ankoseal plastic wires and cables for telephone, federal government, municipal, and commercial utility, and other applications.

Name Sabo Representative, Buckeye Telephone & Supply

The appointment of Andrew Sabo as field representative of the Buckeye Telephone & Supply Co., Columbus, Ohio, has been announced by R. L. Hepner, general sales manager.

Mr. Sabo has been assigned the Indiana, eastern Illinois and northwestern Kentucky area.

He has had 12 years selling experience, both in the operating field and in the distribution field. He was sales and service representative for Michigan Bell Telephone Co., Detroit, for five years. As a distributor salesman, he traveled for nearly six years for the Graybar Electric Co., Chicago, Ill.

Mr. Sabo attended Adrian College, Adrian, Mich., and spent five years in the U. S. Army Air Force.

During his military service, he spent a year in specialized training, including radio operator school, communication air cadet training, and in instructions in

ANDREW SABO

control net systems. Eight months of the communication training was spent at Yale University, after which Mr. Sabo received his commission in the U. S. Army Air Force.

He served in the Asiatic and Pacific theaters and was discharged with the rank of first lieutenant.

Underseas Cable Corp. Formed By U. S., W. German Interests

Phelps Dodge Corp., Northrop Corp., Page Communications Engineers, Inc. (a Northrop subsidiary), and Felten & Guilleaume of West Germany have jointly organized United States Underseas Cable Corp.

Howard T. Brinton, the new company's president, announced the company will design and construct long distance underwater cable systems.

Mr. Brinton also is president of Phelps Dodge Copper Products Corp., wholly-owned wire and cable making subsidiary of Phelps Dodge.

The parent Phelps Dodge company is the U. S. manufacturer of Styroflex cable developed by Felten & Guilleaume.

The new cable company will have available Felten & Guilleaume's manufacturing facilities for underseas cable and underseas repeaters. The West German company's three vessels for surveying and cable laying will also be available.

These include the 11,000-ton Neptun, which, after conversion, will reportedly be the largest and most modern cable ship in the world.

The joint announcement stated that the new corporation proposed to offer immediately a complete cable package, including user's survey, route engineering, installation and maintenance.

Herbert H. Schenck, formerly vice

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CF&I Galvanized Steel Strand is made to ASTM Specification A-122 and is available in 7- and 3-wire constructions. In addition, CF&I manufactures steel strand to customers' individual specifications. Call your local CF&I sales office for full details.

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Monrovia, California

president for engineering at Page Communications, has been named executive vice president of the new company. Principal offices will be in New York and Washington, D. C.

IN THE NATION'S CAPITAL

Concluded from page 18

to commercial telephone companies in suburban metropolitan areas.

The Colorado controversy grew out of an attempt made in 1955 by the Union Rural Electric Association to extend its services into the Denver suburbs of Thornton and Westminster. In January 1957, the Colorado Public Utilities Commission ruled that Union had equal rights to serve the area along with Public Service and Colorado Central. The charge by Public Service that Union was invading its territory was dismissed and an appeal was taken to the state supreme court.

The court majority opinion said: "Public Service and Colorado Central Power have for many years been able and ready to render adequate service. There is complete absence of proof that any additional service is required or desirable." A dissenting opinion by Justice William E. Doyle and Chief Justice Leonard V. B. Sutton said that the majority decision placed co-ops in a "subservient status" and tended to place Union in a "strait jacket" with respect to future operations. The dissenters pointed out that the large company was "not at all concerned with this territory as long as it was essentially rural." As this writer recalls, however, that was supposed to be the whole point of the REA, in the beginning at least—to bring service to the farms, not to the cities or metropolitan suburbs.

Gould-National Names Steele Chicago Manager

The appointment of F. B. Steele as Chicago regional manager has been announced by the Industrial Division of Gould-National Batteries, Inc., Trenton, N. J.

F. B. STEELE

Mr. Steele has been Chicago district manager since early 1957, and has been with Gould since 1947.

In his new capacity, Mr. Steele directs sales and field engineering in the states of Illinois, Wisconsin, Minnesota, Iowa, North and South Dakota and northern Indiana.

Mr. Steele is a naval veteran and a graduate of the Carnegie Institute of Technology.

Buscemi Joins Anaconda As Communications Engineer

Anaconda Wire & Cable Co. has announced the appointment of John V. Buscemi as communications systems engineer.

Mr. Buscemi graduated from New York University in 1942 with the degree of bachelor of electrical engineering and joined the U. S. Army Signal Corps as a communications officer attached to the Air Force.

In 1946, he joined Western Electric Co., where he spent the next three

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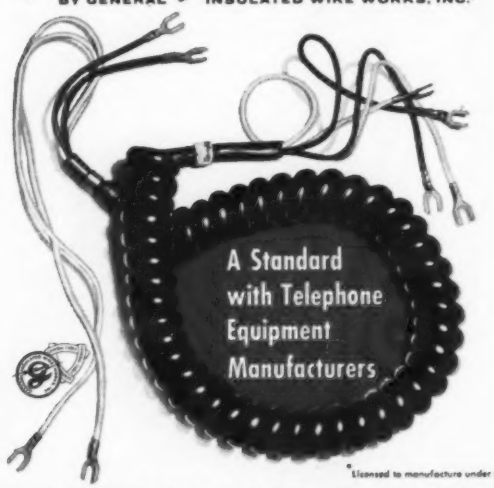

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Telephone cord sets of proved performance backed by General Insulated's unmatched experience and know-how in the manufacture of quality telephone tinsel cordage:

Spiraflex **HANDSET CORDS** in bright colors with non-staining thermoplastic jackets in solid color extrusions matching color shade and sheen of telephone sets. Also non-staining black Neoprene jacketed cords. Both types available with or without integral moldings and terminations. Furnished in standard or extra long lengths.

STRAIGHT HANDSET AND DESK SET CORDS are available in non-staining thermoplastic constructions in matching colors and in black Neoprene.

GENERAL INSULATED WIRE WORKS, INC.

A DIVISION OF GENERAL CABLE CORPORATION
Providence 5, Rhode Island

years as a toll switchboard equipment engineer.

He was employed by REA in 1949 at the inception of its telephone loan program. As group coordinator for transmission engineering, he directed the preparation of REA engineering practices on transmission systems for open wire, cable and radio.

He was responsible for laboratory and field testing and participated in many training and instructional programs under REA auspices. He also gained experience in both voice and carrier frequency transmission. Mr. Buscemi received a superior service award from the Department of Agriculture in May, 1957.

AE Sales Names H. W. Fuller To Carrier, Radio Staff

Harris W. Fuller has been named a staff engineer for the carrier and radio sales division of Automatic Electric Sales Corp., subsidiary of General Telephone & Electronics at Northlake, Ill.

Mr. Fuller is responsible for providing technical advice and consultant service to telephone, railroad and pipeline companies on the application of carrier and microwave radio. He is headquartered in the corporation's northeastern district office in New York City, which serves the states of Conn., Del., Me., Md., Mass., N. H., N. J., N. Y., Pa., R. I., Vt., parts of W. Va., and the District of Columbia. Mr. Fuller's appointment was made in an expansion move to provide greater engineering assistance to customers in these states.

Prior to joining AE in 1959, Fuller was an equipment engineer for Western Electric Co. An associate member of the Institute of Radio Engineers, he was graduated from the R.C.A. Institutes in New York City in 1955.

During the Korean Conflict, he served in photo intelligence with the U. S. Air Force, attaining the rank of sergeant before separation in 1952.

McCarthy Resins Production Head, U. S. I. Chemicals

Donald O. McCarthy has been named by U. S. Industrial Chemicals Co. assistant production manager for Petrothene polyethylene resins. The appointment was announced by Paul J. LaMarche, director of production.

Mr. McCarthy joined U.S.I. in 1956 as a technologist at the company's Tuscola, Ill. plant. At the time he was appointed to his new position, he was an area superintendent.

Following World War II service in the European Theater with the Army

D. O. McCARTHY

Corps of Engineers, Mr. McCarthy attended the University of Nebraska and in 1948 received a B.S. degree in chemical engineering.

Before joining U.S.I., he was with the Girdler Co. at Louisville, Ky.; and prior to that, with Phillips Petroleum at Bartlesville, Okla.

Mr. McCarthy is a member of the American Institute of Chemical Engineers.

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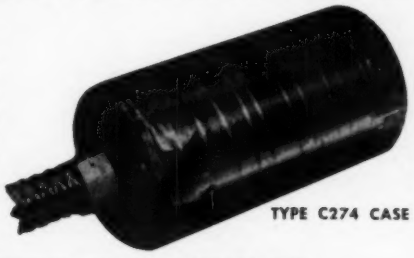

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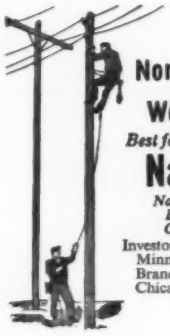

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E-51, 54" stub	25
50 ft. stub	40

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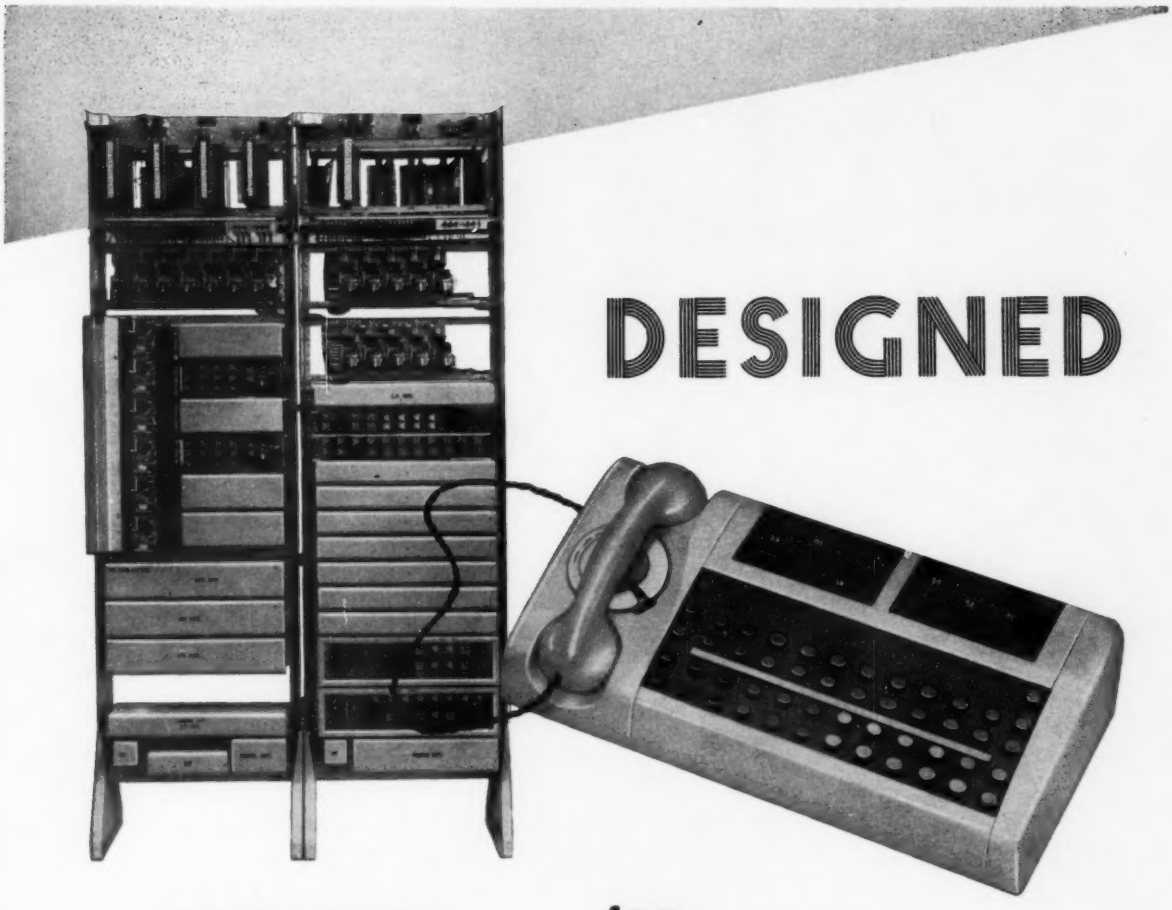

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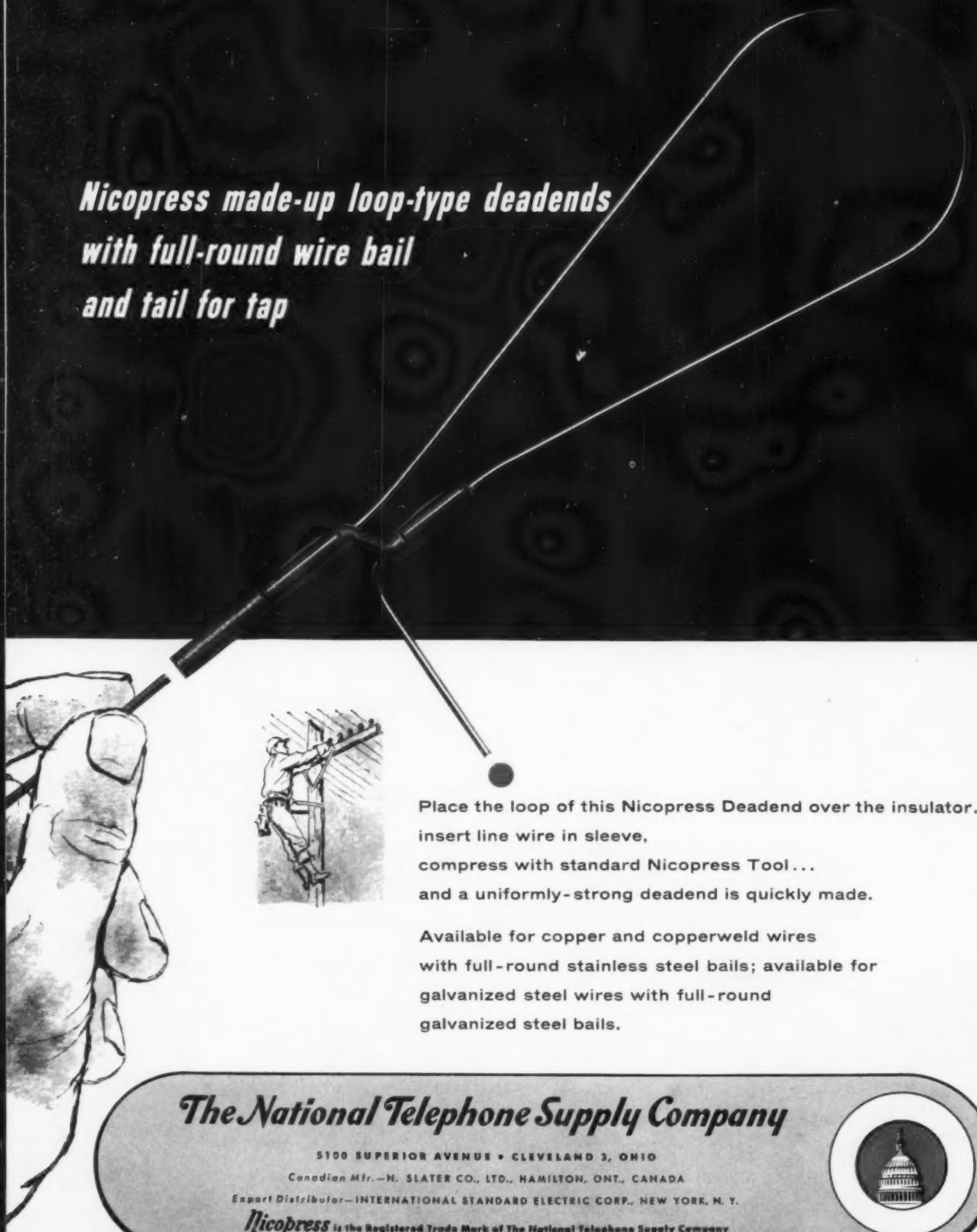

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